

## Larsen Kulrod®Communications Antennas...

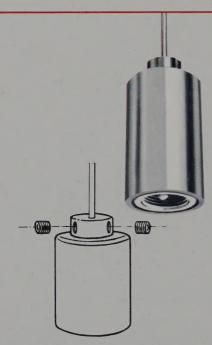
## Designed so you can SEE and HEAR a difference!

Practical performance, long range dependability and attractive appearance are the yardsticks which characterize Larsen Külrod Antennas.

Over the years we at Larsen's have worked to provide antennas that are superior in every way. That remains our goal today. Our company has grown in a relatively few years from a "home basement" operation to a world-wide business. We feel that this is a measure of our success in making the Larsen Kūlrod a truly superior antenna.

Jim Larsen, K7GE President, Larsen Electronics, Inc.





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The Kūlrod Difference. The Larsen Kūlrod Antenna has been engineered to give maximum performance and years of service. The whip on all mobile antennas is made of 17-7 PH precision tapered stainless steel for durable flexibility while minimizing radiation pattern distortion at higher vehicle speeds. It is quadruple-plated with a Larsen developed combination of nickel, copper and chrome to assure maximum power radiation efficiency. With the Larsen Kūlrod Antenna, RF energy goes into communication power rather than into heating the rod.

**Streamlined Appearance.** Larsen Külrod Antennas are designed for eye appeal with a neat, low profile base that blends perfectly with today's vehicles. An occasional quick wipe with a damp cloth and soap will keep the entire antenna looking new and shiny. The specially selected platings on mount rings and threads add to the appearance and keeps corrosion build-up to a minimum.

Super-Efficient Air Wound Coils. The loading coils in Larsen Antennas are air wound for the most efficient transfer of communication energy. There is no power absorbing core. The base loading coil when used is made of extra heavy wire to stay in position and will not detune with years of use. The cutting of the antenna rod to the dimensions supplied in the cutting chart assures lowest V.S.W.R.

Double-Locked Antenna Whips. Two allen head set screws hold Larsen Kulrod Antennas firmly in the base regardless of vehicle speed or vibration. The non-seizing screws are of a corrosion resistant stainless steel alloy which is extremely hard and grips the antenna solidly.

## The Larsen Modular Antenna/Hardware System lets you mix and match to fit your needs.

The Larsen Antenna and Mounting Hardware System is unique in the antenna communications field. With Larsen you do not need to buy or have in stock a multitude of complete antennas with mounts, whips, etc. in order to fit a multiplicity of frequency, mount and performance needs. You can order individual components for the operating combination that fits your requirements and do so without sacrifice in either performance or cost. The parts costs will total to the same figure as the complete antenna.

Larsen's complete line of antennas and mounts are shown and described in detail for easy ordering on pages 3 through 32. Miscellaneous hardware and parts are listed on pages 33 through 35. For further information, contact the nearest Larsen Representative or call the Larsen factory. (Phone numbers inside back cover.)

Remember . . . it costs no more to have the inventory and convenience advantages of the Larsen "M" System.

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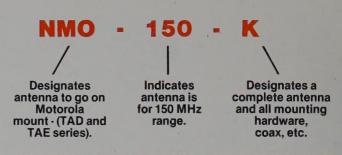
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BT-450 Antenna 36 FB1-136 Fixed Base Antenna 24 HY-150 Antenna 36 JM-150 Antenna 11 JM-150-K Mount and Antenna 11 JM-220 Antenna 11 JM-220-K Mount and Antenna 11 JM-240-K Mount and Antenna 16 JM-440-K Mount and Antenna 16 JM-450-K Mount and Antenna 16 JM-450-K Mount and Antenna 16 JM-450-K Mount and Antenna 16 JM-K Mount 11, 16 JM-K Mount 11, 16 JM-K Mount 11, 16 JMC-66-K Antenna and Mount 11, 16 JMC-61-36 thru KD-1-470 Antennas 21 KD-2-136 thru KD-2-470 Antennas 21 KD-3-136 thru KD-3-470 Antennas 21 KD-4-136 thru KD-4-470 Antennas 21 KD-5-136 thru KD-5-470 Antennas 21	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LMQ-MM Magnetic Mount and       29         LMQ-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       20         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-30-K Mount and Antenna       4         NLA-34 Antenna       4         NLA-34 Antenna       4	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-40-K Mount and Antenna         5           NMO-50 Antenna         5           NMO-50-K Mount and Antenna         9           NMO-150 Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440 Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66 Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q Antenna         19
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       36         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       36         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30 Antenna       4         NLA-34 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4	NMO-34-K Mount and Antenna       .5         NMO-40 Antenna       .5         NMO-50 Antenna       .5         NMO-50-K Mount and Antenna       .5         NMO-150-K Mount and Antenna       .9         NMO-150-K Mount and Antenna       .9         NMO-220 Antenna       .9         NMO-220-K Mount and Antenna       .14         NMO-440-K Mount and Antenna       .14         NMO-440-K Mount and Antenna       .14         NMO-450 Antenna       .14         NMO-800-LLK       .17         NMO-GC Gutter Clamp Mount       .30         NMO-K Mount       .5, 6, 9, 14         NMO-MM Magnetic Mount       .29         NMO-Q-66-K Mount and Antenna       .18         NMO-Q-66-K Mount and Antenna       .18         NMO-Q-K Mount and Quarter Wave Antenna       .19         NMO-Q-K Mount and Quarter Wave Antenna       .19
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       22         MQ-TLM Trunk Lid Mount and       4-19         MHW-150       22         MO-Antennas       36         NLA-27-K Mount and Antenna       4-6         NLA-30 Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40 Antenna       4         NLA-40 Antenna       4	NMO-34-K Mount and Antenna       5         NMO-40 Antenna       5         NMO-50 K Mount and Antenna       5         NMO-50-K Mount and Antenna       5         NMO-150-K Mount and Antenna       9         NMO-150-K Mount and Antenna       9         NMO-220 Antenna       9         NMO-220-K Mount and Antenna       14         NMO-440-K Mount and Antenna       14         NMO-450-K Mount and Antenna       14         NMO-450-K Mount and Antenna       14         NMO-800-LLK       17         NMO-GC Gutter Clamp Mount       30         NMO-K Mount       5, 6, 9, 14         NMO-MM Magnetic Mount       29         NMO-Q-66-K Mount and Antenna       18         NMO-Q-66-K Mount and Antenna       18         NMO-Q-K Mount and Quarter Wave Antenna       19         NMO-TLM Trunk Lid Mount       28
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-HMM Magnetic Mount       29         LMQ-MM Magnetic Mount and       28         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount and       28         LMQ-TLM Trunk Lid Mount and       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-30 -K Mount and Antenna       4         NLA-34 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40 -K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4	NMO-34-K Mount and Antenna         .5           NMO-40 Antenna         .5           NMO-50-K Mount and Antenna         .5           NMO-50-K Mount and Antenna         .5           NMO-150-K Mount and Antenna         .9           NMO-150-K Mount and Antenna         .9           NMO-220 Antenna         .9           NMO-220-K Mount and Antenna         .9           NMO-240-K Mount and Antenna         .14           NMO-440-K Mount and Antenna         .14           NMO-450-K Mount and Antenna         .14           NMO-800-LLK         .17           NMO-800-LLK         .17           NMO-GC Gutter Clamp Mount         .30           NMO-K Mount         .5, 6, 9, 14           NMO-MM Magnetic Mount         .29           NMO-Q-66-K Mount and Antenna         .18           NMO-Q-66-K Mount and Antenna         .18           NMO-Q-K Mount and Quarter Wave Antenna         .19           NMO-Q-K Mount and Quarter Wave Antenna         .19           NMO-TLM Trunk Lid Mount         .28           OM-150-K Complete Mount and Antenna         .23
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       20         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27 Antenna       4-6         NLA-27 Antenna       4         NLA-30 -K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40 -K Mount and Antenna       4         NLA-50 Antenna       4         NLA-50 Antenna       4         NLA-50 Antenna       4	NMO-34-K Mount and Antenna       .5         NMO-40 Antenna       .5         NMO-50 K Mount and Antenna       .5         NMO-50-K Mount and Antenna       .5         NMO-150 Antenna       .9         NMO-150-K Mount and Antenna       .9         NMO-220 Antenna       .9         NMO-220-K Mount and Antenna       .9         NMO-220-K Mount and Antenna       .14         NMO-440 Antenna       .14         NMO-450-K Mount and Antenna       .14         NMO-450-K Mount and Antenna       .14         NMO-800-LLK       .17         NMO-6C Gutter Clamp Mount       .30         NMO-K Mount       .5, 6, 9, 14         NMO-MM Magnetic Mount       .29         NMO-Q-66-K Mount and Antenna       .18         NMO-Q-6-K Mount and Quarter Wave Antenna       .19         NMO-Q-K Mount and Quarter Wave Antenna       .19         NMO-TLM Trunk Lid Mount       .28         OM-150-K Complete Mount and Antenna       .23         OM-450-K Complete Mount and Antenna       .23
BT-450 Antenna	LM-450 Antenna 15 LM-450-K Mount and Antenna 15 LM-800-LLK 17 LM-GC Gutter Clamp Mount 30 LM-K Mount 10, 15 LMQ-66-K Antenna and Mount 18 LMQ-K Mount and Quarter Wave Antenna 19 LM-MM Magnetic Mount 29 LM-MM Magnetic Mount 31 LM-TLM Trunk Lid Mount 32 LMQ-TLM Trunk Lid Mount 32 LMQ-TLM Trunk Lid Mount 33 LMQ-TLM Trunk Lid Mount 34 LMQ-TLM Trunk Lid Mount 36 LMQ-TLM Trun	NMO-34-K Mount and Antenna       5         NMO-40 Antenna       5         NMO-50 Antenna       5         NMO-50-K Mount and Antenna       5         NMO-150-K Mount and Antenna       9         NMO-150-K Mount and Antenna       9         NMO-220 Antenna       9         NMO-220-K Mount and Antenna       14         NMO-440-K Mount and Antenna       14         NMO-440-K Mount and Antenna       14         NMO-450 Antenna       14         NMO-800-LLK       17         NMO-GC Gutter Clamp Mount       30         NMO-K Mount       5, 6, 9, 14         NMO-MM Magnetic Mount       29         NMO-Q-66-K Mount and Antenna       18         NMO-Q-Antenna       19         NMO-Q-K Mount and Quarter Wave Antenna       19         NMO-TLM Trunk Lid Mount       28         OM-150-K Complete Mount and Antenna       23         OM-150-K Complete Mount and Antenna       23         OMNI Antennas       23
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       22         MO-TLM Trunk Lid Mount and       36         NLA-27-K Move Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       4         NLA-150 Antenna       4         NLA-150 Antenna       4         NLA-150 Antenna       8	NMO-34-K Mount and Antenna       5         NMO-40 Antenna       5         NMO-50-K Mount and Antenna       5         NMO-50-K Mount and Antenna       5         NMO-150-K Mount and Antenna       9         NMO-150-K Mount and Antenna       9         NMO-220 Antenna       9         NMO-220-K Mount and Antenna       14         NMO-440-K Mount and Antenna       14         NMO-450 Antenna       14         NMO-450-K Mount and Antenna       14         NMO-800-LLK       17         NMO-GC Gutter Clamp Mount       30         NMO-K Mount       5, 6, 9, 14         NMO-MM Magnetic Mount       29         NMO-Q-66-K Mount and Antenna       18         NMO-Q-66-K Mount and Quarter Wave Antenna       19         NMO-Q-K Mount and Quarter Wave Antenna       19         NMO-TLM Trunk Lid Mount       28         OM-150-K Complete Mount and Antenna       23         OM-150-K Complete Mount and Antenna       23         PHW-150 Portable/Emergency Antenna       22
BT-450 Antenna 36 FBI-136 Fixed Base Antenna 24 HY-150 Antenna 36 JM-150 Antenna 11 JM-150-K Mount and Antenna 11 JM-220 Antenna 11 JM-220-K Mount and Antenna 11 JM-220-K Mount and Antenna 16 JM-440 Antenna 16 JM-440 Antenna 16 JM-450 Antenna 16 JM-450 Antenna 16 JM-450 K Mount and Antenna 16 JM-450 Antenna 15 KD-136 thru KD-1470 Antennas 21 KD-2-136 thru KD-2-470 Antennas 21 KD-3-136 thru KD-3-470 Antennas 21 KD-5-136 thru KD-4-470 Antennas 21 KD-5-136 thru KD-4-470 Antennas 21 KD-5-136 thru KD-4-470 Antennas 21 KD-9-136 thru KD-4-470 Antennas 21 KD-9-136 thru KD-4-470 Antennas 21 KD-9-136 thru KD-5-470 Antennas 21 KD-1-1406 thru KD-12-450 Antennas 21 KD-12-406 thru KD-12-450 Antennas 21 KD-13-406 thru KD-12-450 Antennas 21 KD-13-406 thru KD-13-450 Antennas 21 KD-14-406 thru KD-12-450 Antennas 21 KD-15-406 thru KD-13-450 Antennas 21 KD-15-406 thru KD-13-450 Antennas 21	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-HM Magnetic Mount       29         LMQ-MM Magnetic Mount and       28         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount and       22         LMQ-TLM Trunk Lid Mount and       22         MO-Antennas       36         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30-K Mount and Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       4         NLA-50 Antenna       4         NLA-50 Antenna       8         NLA-150 Antenna       8         NLA-150-K Mount and Antenna       8	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220-K Mount and Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-MM Magnetic Mount         29           NMO-Q-66 Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         22           OM-150-K Ontable/Emergency Antenna         22
BT-450 Antenna 36 FBI-136 Fixed Base Antenna 24 HY-150 Antenna 36 JM-150 Antenna 11 JM-150-K Mount and Antenna 11 JM-220 Antenna 11 JM-220 Antenna 11 JM-220-K Mount and Antenna 11 JM-440 Antenna 16 JM-440-K Mount and Antenna 16 JM-450 Antenna 16 JM-450-K Mount and Antenna 16 JM-450-K Mount and Antenna 16 JM-450-K Mount and Antenna 16 JM-K Mount 11, 16 JM-66-K Antenna 16 JM-K Mount 11, 16 JM-250-K Mount and Antenna 19 KD-1-136 thru KD-1-470 Antennas 21 KD-2-136 thru KD-2-470 Antennas 21 KD-3-136 thru KD-3-470 Antennas 21 KD-4-136 thru KD-3-470 Antennas 21 KD-5-136 thru KD-5-470 Antennas 21 KD-5-136 thru KD-5-470 Antennas 21 KD-1-136 thru KD-9-470 Antennas 21 KD-1-1406 thru KD-13-450 Antennas 21 KD-13-406 thru KD-13-450 Antennas 21 KD-15-406 thru KD-15-450 Antennas 21 KD-16-406 thru KD-15-450 Antennas 21	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount and       20         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       4         NLA-150-K Mount and Antenna       8         NLA-220 Antenna       8         NLA-220 Antenna       8         NLA-220 Antenna       8	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220-K Mount and Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-MM Magnetic Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-Q-66 Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Mount and Antenna         28           OM-150-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         30
BT-450 Antenna	LM-450 Antenna	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-MM Magnetic Mount         5, 6, 9, 14           NMO-MM Magnetic Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OMNI Antennas         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         30           PO-MM Magnetic Mount         29
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LMQ-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       22         MO-Antennas       36         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-30 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40 Antenna       4         NLA-40 K Mount and Antenna       4         NLA-50 -K Mount and Antenna       8         NLA-150 Antenna       8         NLA-150 -K Mount and Antenna       8         NLA-220 Antenna       8         NLA-220 -K Mount and Antenna       8         NLA-220 -K Mount and Antenna       8         NLA-220 -K Mount and Antenna       8 <tr< td=""><td>NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-80-LLK         17           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         5, 6, 9, 14           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         29           PO-GC Gutter Clamp Mount         29           PO-TLM Trunk Lid Mount         29</td></tr<>	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-80-LLK         17           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         5, 6, 9, 14           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         29           PO-GC Gutter Clamp Mount         29           PO-TLM Trunk Lid Mount         29
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       20         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount and       22         LMQ-TLM Trunk Lid Mount and       22         MO-Antennas       36         NLA-27 K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-30 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50 Antenna       4         NLA-50 Antenna       8         NLA-220-K Mount and Antenna       8         NLA-220-K Mount and Antenna       8         NLA-220-K Mount and Antenna       8         NLA-440-K Mount and Antenna       13         NLA-440-K Mount and Antenna       13	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-450-K Completer Clamp Mount         30           OM-9-150-M Magnetic Mo
### BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       28         Quarter Wave Antenna       18-19         LM-TLM Trunk Lid Mount and       28         LMQ-TLM Trunk Lid Mount and       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       8         NLA-150 Antenna       8         NLA-220 Antenna       8         NLA-220 Antenna       8         NLA-220 Antenna       8         NLA-220 Antenna       8         NLA-440 Antenna       8         NLA-450 Antenna       8         NLA-40-K Mount and Antenna	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66 Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Anten
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       18-19         Quarter Wave Antenna       18-19         LMQ-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       20         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27 Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-30 Antenna       4         NLA-30 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       8         NLA-150-K Mount and Antenna       8         NLA-220-K Mount and Antenna       8         NLA-440-K Mount and Antenna       8         NLA-440-K Mount and Antenna       13         NLA-450-K Mount and Antenna       13         <	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-GK Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OMNI Antennas         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         30           PO-MM Magnetic Mount         28           Q-66 Antenna         18           Q-66 Antenna         <
## BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       29         Quarter Wave Antenna       18-19         LMQ-TLM Trunk Lid Mount       28         LMQ-TLM Trunk Lid Mount and       20         Quarter Wave Antenna       18-19         MHW-150       22         MO-Antennas       36         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30 Antenna       4         NLA-34-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       8         NLA-150-K Mount and Antenna       8         NLA-220-K Mount and Antenna       8         NLA-440 Antenna       13         NLA-450-K Mount and Antenna       13         NLA-450-K Mount and Antenna       13	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-80-LLK         17           NMO-800-LLK         17           NMO-6C Gutter Clamp Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-7-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         20           PO-GC Gutter Clamp Mount         29           PO-TLM Trunk Lid Mount         29           PO-TLM Trunk Lid Mount         29
BT-450 Antenna	LM-450 Antenna       15         LM-450-K Mount and Antenna       15         LM-800-LLK       17         LM-GC Gutter Clamp Mount       30         LM-K Mount       10, 15         LMQ-66-K Antenna and Mount       18         LMQ-K Mount and Quarter Wave Antenna       19         LM-MM Magnetic Mount       29         LMQ-MM Magnetic Mount and       22         Quarter Wave Antenna       18-19         LMQ-TLM Trunk Lid Mount and       22         LMQ-TLM Trunk Lid Mount and       22         MC-TLM Trunk Lid Mount and       4-6         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4-6         NLA-27-K Mount and Antenna       4         NLA-30 Antenna       4         NLA-30-K Mount and Antenna       4         NLA-34-K Mount and Antenna       4         NLA-40-K Mount and Antenna       4         NLA-50-K Mount and Antenna       8         NLA-220-K Mount and Antenna       8         NLA-220-K Mount and Antenna       13         NLA-440-K Mount and Antenna       13         NLA-450-K Mount and Antenna       13         NLA-450-K Mount and Antenna       13         NLA-450-K Mo	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-NK Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-450-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         29           OM-90-K Mount an
## BT-450 Antenna	LM-450 Antenna         15           LM-450-K Mount and Antenna         15           LM-800-LLK         17           LM-GC Gutter Clamp Mount         30           LM-K Mount         10, 15           LMQ-66-K Antenna and Mount         18           LMQ-K Mount and Quarter Wave Antenna         19           LM-MM Magnetic Mount and         29           LMQ-MM Magnetic Mount and         28           LMQ-TLM Trunk Lid Mount         28           LMQ-TLM Trunk Lid Mount and         28           LMQ-TLM Trunk Lid Mount and         22           MO-Antenna         18-19           MHW-150         22           MO-Antennas         36           NLA-27 Antenna         4-6           NLA-27-K Mount and Antenna         4-6           NLA-27-K Mount and Antenna         4           NLA-30-K Mount and Antenna         4           NLA-34-K Mount and Antenna         4           NLA-40-K Mount and Antenna         4           NLA-40-K Mount and Antenna         8           NLA-150 Antenna         8           NLA-220 Antenna         8           NLA-220 Antenna         8           NLA-220 Antenna         13           NLA-440 An	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-450-K Mount and Antenna         14           NMO-800-LLK         17           NMO-MM Magnetic Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66 Antenna         18           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         22           PO-T50 Antenna         22           PO-TM Magnetic Mount
BT-450 Antenna	LM-450 Antenna         15           LM-450-K Mount and Antenna         15           LM-800-LLK         17           LM-GC Gutter Clamp Mount         30           LM-K Mount         10, 15           LMQ-66-K Antenna and Mount         18           LMQ-K Mount and Quarter Wave Antenna         19           LM-MM Magnetic Mount         29           LMQ-MM Magnetic Mount and         20           Quarter Wave Antenna         18-19           LM-TLM Trunk Lid Mount         28           LMQ-TLM Trunk Lid Mount and         20           Quarter Wave Antenna         18-19           MHW-150         22           MO-Antennas         36           NLA-27 Antenna         4-6           NLA-27-K Mount and Antenna         4-6           NLA-30 Antenna         4           NLA-34 Antenna         4           NLA-34-K Mount and Antenna         4           NLA-40 Antenna         4           NLA-40 Antenna         4           NLA-50-K Mount and Antenna         4           NLA-150 Antenna         8           NLA-150-K Mount and Antenna         8           NLA-220-K Mount and Antenna         8           NLA-220-K Mount and Ant	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-GK Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         20           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OMNI Antennas         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         30           PO-MM Magnetic Mount         28           Q-66 Antenna         18           Q-66 Antenna
BT-450 Antenna	LM-450 Antenna         15           LM-450-K Mount and Antenna         15           LM-800-LLK         17           LM-GC Gutter Clamp Mount         30           LM-K Mount         10, 15           LMQ-66-K Antenna and Mount         18           LMQ-K Mount and Quarter Wave Antenna         19           LM-MM Magnetic Mount         29           LMQ-MM Magnetic Mount and         20           Quarter Wave Antenna         18-19           LMQ-TLM Trunk Lid Mount         28           LMQ-TLM Trunk Lid Mount and         20           Quarter Wave Antenna         18-19           MHW-150         22           MO-Antennas         36           NLA-27 Antenna         4-6           NLA-27-K Mount and Antenna         4-6           NLA-30 Antenna         4           NLA-34-K Mount and Antenna         4           NLA-34-K Mount and Antenna         4           NLA-40-K Mount and Antenna         4           NLA-50-K Mount and Antenna         8           NLA-150-K Mount and Antenna         8           NLA-220 Antenna         8           NLA-220-K Mount and Antenna         13           NLA-450-K Mount and Antenna         13	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-240-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         22           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna<
BT-450 Antenna	LM-450 Antenna         15           LM-450-K Mount and Antenna         15           LM-800-LLK         17           LM-GC Gutter Clamp Mount         30           LM-K Mount         10, 15           LMQ-66-K Antenna and Mount         18           LMQ-K Mount and Quarter Wave Antenna         19           LM-MM Magnetic Mount         29           LMQ-MM Magnetic Mount and         20           Quarter Wave Antenna         18-19           LM-TLM Trunk Lid Mount and         22           LMQ-TLM Trunk Lid Mount and         22           LMQ-TLM Trunk Lid Mount and         22           MC-Artenna         36           NLA-27-K Mount and Antenna         4-6           NLA-27-K Mount and Antenna         4-6           NLA-27-K Mount and Antenna         4           NLA-30 Antenna         4           NLA-30-K Mount and Antenna         4           NLA-34-K Mount and Antenna         4           NLA-40-K Mount and Antenna         4           NLA-50-K Mount and Antenna         8           NLA-220-K Mount and Antenna         13           NLA-220-K Mount and Antenna         13           NLA-450-K Mount and Antenna         13           NLA-450-K Mount a	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-GK Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         20           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OMNI Antennas         23           PHW-150 Portable/Emergency Antenna         22           PO-GC Gutter Clamp Mount         30           PO-MM Magnetic Mount         28           Q-66 Antenna         18           Q-66 Antenna
BT-450 Antenna	LM-450 Antenna         15           LM-450-K Mount and Antenna         15           LM-800-LLK         17           LM-GC Gutter Clamp Mount         30           LM-K Mount         10, 15           LMQ-66-K Antenna and Mount         18           LMQ-K Mount and Quarter Wave Antenna         19           LM-MM Magnetic Mount         29           LMQ-MM Magnetic Mount and         20           Quarter Wave Antenna         18-19           LMQ-TLM Trunk Lid Mount         28           LMQ-TLM Trunk Lid Mount and         20           Quarter Wave Antenna         18-19           MHW-150         22           MO-Antennas         36           NLA-27 Antenna         4-6           NLA-27-K Mount and Antenna         4-6           NLA-30 Antenna         4           NLA-34-K Mount and Antenna         4           NLA-34-K Mount and Antenna         4           NLA-40-K Mount and Antenna         4           NLA-50-K Mount and Antenna         8           NLA-150-K Mount and Antenna         8           NLA-220 Antenna         8           NLA-220-K Mount and Antenna         13           NLA-450-K Mount and Antenna         13	NMO-34-K Mount and Antenna         5           NMO-40 Antenna         5           NMO-50-K Mount and Antenna         5           NMO-50-K Mount and Antenna         5           NMO-150-K Mount and Antenna         9           NMO-150-K Mount and Antenna         9           NMO-220 Antenna         9           NMO-220-K Mount and Antenna         14           NMO-240-K Mount and Antenna         14           NMO-440-K Mount and Antenna         14           NMO-450 Antenna         14           NMO-800-LLK         17           NMO-GC Gutter Clamp Mount         30           NMO-K Mount         5, 6, 9, 14           NMO-MM Magnetic Mount         29           NMO-Q-66-K Mount and Antenna         18           NMO-Q-66-K Mount and Antenna         19           NMO-Q-K Mount and Quarter Wave Antenna         19           NMO-TLM Trunk Lid Mount         28           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna         22           OM-150-K Complete Mount and Antenna         23           OM-150-K Complete Mount and Antenna<

## The Larsen EASY MEMORY Nomenclature System

The Larsen Antenna identification system is easily understood and even more easily remembered.

Each antenna is designated by a letter and number combination. The first letter series indicates the mount with which the antenna is to mate. The figures show the frequency range. Thus the NLA-150 designation indicates an antenna for the Larsen NLA mount and to operate on the 150 MHz band. If you want to designate a complete antenna with the base, whip **and** mounting hardware including coax, plug, etc., you add a "K" after the frequency numbers.

Even the "initials" are easy to remember. They follow as closely as possible the actual names and/or development of the individual antennas. Thus, the first Larsen Antenna was given the "LA" designation. When an improved Larsen eliminated the long time black ball insulator, the model was designated as the "NLA" for "New Larsen Antenna". This same approach designated the new Motorola (TAD - TAE series) as "NMO", the BSA-K for the "Base Station Adapter Kit", the "MM" being the "Magnetic Mount", the TLM the "Trunk Lid Mount", and so on. It's easy. It's simple.



## Special Antenna Needs?

If you have any two-way antenna needs not covered in this catalog, we welcome the opportunity to be of help. We can provide individualized engineering to cover special frequency, environmental or installation situations. Direct your inquiries to:

John Beaman Vice President and General Manager Larsen Electronics, Inc. P.O. Box 1686 Vancouver, WA 98668 206/573-2722

## Base Dimensions for Larsen Mobile Antennas

Larsen Antenna bases are slightly tapered from bottom to top. Dimensions given here are at the widest point (next to the vehicle) of the taper. Height dimension includes top metal ferrule where rod attaches. For OMNI and NMO-Q as well as NLA-Q the widest points of the base (not the flats of the hexagon) are used in measuring.

Model	Diamete Inches	er mm	Length Inches	mm	Model	Diamete Inches	mm	Length Inches	mm
NLA-27	1.3	33	3.3	84	NLA-220	1.3	33	2.0	51
NMO-27	1.35	34	3.3	84	NMO-220	1.3	33	1.7	43
NLA-30	1.3	33	3.3	84	LA/JM-450	1.05	26	1.7	43
NMO-30	1.35	34	3.3	84	LM-450	1.3	33	1.7	43
NLA-34	1.3	33	2.8	71	NLA-450	1.3	33	1.7	43
NMO-34	1.35	34	2.8	71	NMO-450	1.3	33	1.3	33
NLA-40	1.3	33	2.8	71	OM-450	2.15	38	2.5	52
NMO-40	1.35	34	2.8	71	PO-450	0.75	19	0.9	22
NLA-50	1.3	33	2.8	71	NOTE: U	JHF Anter	nas c	overina	
NMO-50	1.35	34	2.3	58		ies 406-4		0	10
LA/JM-150	1.05	26	1.7	43	MHz, 44	0-460 MH	z, 450	-470 MH	z,
LM-150	1.4	35	2.0	51		MHz and			
NLA-150	1.3	33	2.0	51		ne dimen	sions	as 450 m	odels
NMO-150	1.3	33	1.7	43	shown a	bove.			
OM-150	2.15	38	2.5	52	JMQ	0.5	13	0.9	22
PO-150	1.0	25	2.0	51	LAQ	0.5	13	0.9	22
LA/JM-220	1.05	26	1.7	43	LMQ	0.5	13	0.9	22
LM-220	1.4	35	2.0	51	NLA-Q	1.7	38	1.4	35
					NMO-Q	1.7	38	1.1	28

## Easy Model Identification. A Larsen Exclusive!

Every Larsen antenna base is now marked permanently as to model and frequency. No longer need you guess as to which antenna covers which frequency. Installation is simplified. Stock keeping is a snap. Odd lots of unidentified antennas are eliminated.

Identification is permanently sealed in plastic. You'll always know it's a Larsen—what frequency it covers and the mount it mates with.



# LARSEN KÜLROD®MOBILE ANTENNAS LOX/BAND



## BASE LOADED MOBILE ANTENNAS

Models for permanent vehicle mounting as well as temporary types covering all low band frequencies:

27-31 MHz...30-35 MHz... 34-40 MHz...40-50 MHz... 47-54 MHz.

The Larsen Low Band Antennas are designed and built to deliver a difference you can hear and an improved appearance you can see. They have the exclusive Kūlrod that assures you maximum radiation efficiency without loss of power in rod resistance and heating. They are built with heavy duty base coils . . . air wound for no R.F. loss.

#### With Larsen Külrod you get:

- Low silhouette and minimum dimensions for less wind drag.
- Low V.S.W.R....less than 1.5 to 1.
- No coils to tune—just cut the rod for required frequency.
- Radiation pattern omni on symmetrical ground plane.
- No springs to deteriorate and degrade performance.
- Guaranteed weather and water resistant.

## Handles full 200 watts of power.

#### **ORDERING SUGGESTION**

Among the various Low Band Larsen Antennas there is some overlapping of frequency coverage between models. The "30" model, for instance, covers 30-35 MHz and the "34" model accommodates 34-40 MHz. In these cases if you want to operate on 35 MHz, order the one that requires the longest whip, i.e., the highest frequency model which will cover the range. Thus, to cover 35 MHz the "34" model would be the best choice.

For mechanical details...
Base dimensions appear on page 2.

## LARSEN KÜLROD®MOBILE ANTENNAS LOX/BAND

## **NLA** SERIES

Designed to give superior performance with simplified, low silhouette mounting on snap-in type hardware; such as, RCA, GE, ASP, etc. but does NOT require bulky black insulator.

- 5 frequency ranges available to cover all popular Low Bands . . . 27-54 MHz.
- Mates with NLA-K Body Mount for complete installation on Roof/Trunk/Fender or on NLA style magnetic, trunk lid, gutter or other temporary mounts.
- Rod cutting chart for specific frequencies and allen wrench furnished.
- NLA Series Antennas also fit BAM hardware. See page 33 for BAM Cowl adjustable mounting.

Adapter Available . . .

for NLA Series to fit BSA-K and BA type hardware. See page 33.

27-31 MHz 40-50 MHz 30-35 MHz 47-54 MHz 34-40 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender or body mounting order:

NLA-27-K	for 27-31 MHz use.
NLA-30-K	for 30-35 MHz use.
NLA-34-K	for 34-40 MHz use.
NLA-40-K	for 40-50 MHz use.
NLA-50-K	for 47-54 MHz use.

### For NLA Antenna only order:

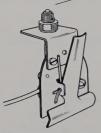
(no mounting hardware)

NLA-27	for 27-31 MHz use.
NLA-30	for 30-35 MHz use.
NLA-34	for 34-40 MHz use.
NLA-40	for 40-50 MHz use.
NLA-50	for 47-54 MHz use.

## For Body Mount Installation Kit only order: (no antenna)

NLA-K... Mount comes complete with 17' RG-58 A/U coax, PL-259 plug and full instructions.





**GUTTER CLAMP** 

NLA-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for NLA antenna order NLA-GC.



TRUNK LID

NLA-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NLA antenna order NLA-TLM.



Permanent Body Mount

NLA-\*-K

NLA-K Mount requires 3/8" hole in vehicle for simplest, lowest silhouette snap-in type mounting available anywhere.



TRUNK GUTTER

NLA-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NLA antenna order NLA-TMB.



MAGNETIC MOUNT

NLA-\*-MM

for complete antenna and Magnetic mount.

For Magnetic mount only for NLA antenna order NLA-MM.

Fill in frequency model needed. Examples: NLA-27-GC, NLA-40-TLM, NLA-30-TMB, etc.

# LARSEN KÜLROD®MOBILE ANTENNAS

## **NMO** SERIES

Designed specifically to mate with Motorola TAD and TAE type mounting hardware to give a top performing antenna with superior design appearance.

- Available in 5 models to cover all Low Band frequencies.
- Supplied complete with cutting chart and allen wrench.
- Mates with NMO-K Body Mount for complete installation on Roof/Trunk/Fender. Also mates with temporary mounts such as Gutter Clamp, Magnetic, Trunk Gutter, etc. See below.

27-31 MHz 40-50 MHz 30-35 MHz 47-54 MHz 34-40 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender, or body mounting order:

NMO-27-K	for 27-31 MHz use.
NMO-30-K	for 30-35 MHz use.
NMO-34-K	for 34-40 MHz use.
NMO-40-K	for 40-50 MHz use.
NMO-50-K	for 47-54 MHz use.

### For NMO Antenna only order:

(no mounting hardware)

NMO-27	for 27-31 MHz use.
NMO-30	for 30-35 MHz use.
NMO-34	for 34-40 MHz use.
NMO-40	for 40-50 MHz use.
NMO-50	for 47-54 MHz use.

## For Body Mount Installation Kit only order: (no antenna)

NMO-K . . . Mount comes complete with 17' RG-58 A/U coax factory attached, PL-259 plug and full instructions.

#### Adapters

NMO to BSA Mount NMO to BAM Mount See page 33.





**GUTTER CLAMP** 

NMO-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for NMO antenna order NMO-GC.



TRUNK LID

NMO-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NMO antenna order NMO-TLM.



Permanent Body Mount

NMO-\*-K

NMO-K Mount requires 3/4" hole in vehicle. Provides roof hugging installation and positive connection to ground plane for top performance and maximum mechanical rigidity.



TRUNK GUTTER

NMO-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NMO antenna order NMO-TMB.



MAGNETIC MOUNT

NMO-\*-MM

for complete antenna and Magnetic mount.

For Magnetic mount only for NMO antenna order NMO-MM.

\* Fill in frequency model needed. Examples: NMO-27-GC, NMO-40-TLM, NMO-30-TMB, etc.

## LARSEN KÜLROD®MOBILE ANTENNAS

# CB

### Personal Radio

Do not confuse Larsen Kulrod CB Antennas with the usual "rod and mount" mobile antenna that you can buy for much less. These Larsen's are the same antennas designed for the tough competition of the commercial two-way radio field. They have to justify their higher cost with a difference you can see and HEAR. They do.

do. preceeding two pages.

### Model NMO-27-K

Complete antenna and permanent roof/body/fender mount. Mounts in 3/4 inch hole in vehicle. Comes complete with 17 feet of coax attached to mount, PL-259 plug and full instructions.

### PL-259 plug an

Complete antenna and permanent mounting hardware for roof/fender/car body. Requires 3/8 inch hole in vehicle. Comes with 17 feet of RG58 A/U coax, PL-259 plug and full instructions.

Antennas only or mounts

only available. See

Model NLA-27-K

#### **4 Temporary Mounting Styles**

Give great flexibility of installation and practical options for no-holes mounting and top performance. Helps to solve the "rip-off" problem.



#### MAGNETIC MOUNT NLA-27-MM NMO-27-MM

Complete with antenna, attached coax and plug. Holds at any legal highway speed. Magnets guaranteed permanent under normal use.



#### GUTTER CLAMP MOUNT NLA-27-GC NMO-27-GC

Complete Külrod antenna and a fast on-off mount that provides an answer for temporary, no-holes application. Includes coax and plug that are factory installed.



#### TRUNK GUTTER MOUNT NLA-27-TMB NMO-27-TMB

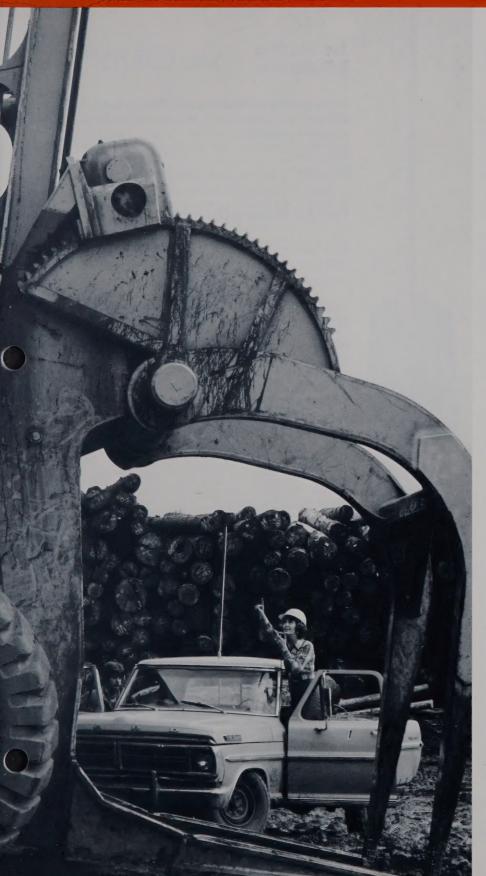
Includes Kūlrod antenna and stainless steel bracket that fastens to trunk gutter with 3 sheet metal screws. Use for trunk or engine hood applications. Comes with 17 feet of coax, connector, instructions.



## TRUNK LID MOUNT NLA-27-TLM NMO-27-TLM

Complete with Kūlrod antenna and mount that attaches to under side of trunk hood for no-holes, no-mar mounting. Includes attached coax and plug plus full instructions.

# LARSEN KULROD®MOBILE ANTENNAS HIGH BAND



## BASE LOADED MOBILE ANTENNAS

## Deliver full 3 db GAIN over 1/4 wave whip!

Models for 9 different permanent vehicle mounts plus 4 temporary mounts and covering all high band frequencies:

## 144-174 MHz...200-265 MHz

Appearance . . . performance . . . dependable long-term service . . . those are the key words describing the Larsen High Band Mobile Gain Antenna. It adds up to a difference you can see and a difference you can hear . . . particularly because of the exclusive Larsen Kūlrod that assures you maximum radiation efficiency without loss of power through rod heating.

#### With Larsen Külrod Antennas you get:

- Lowest silhouette and smallest dimensions for minimum wind drag.
- Very, very low V.S.W.R. . . . less than 1.5 to 1.
- No high RF loss mounting springs to deteriorate effective radiation.
- Tough and reliable base structure guaranteed weather and water resistant.
- Just cut whip for required frequency following the supplied chart.

## All Larsen High Band Antennas handle full 200 watts of power.

Pick the model of Larsen Kulrod Gain Antenna from the following page and get ready to HEAR the difference.

For mechanical details...
Base dimensions appear on page 2.

## LARSEN KÜLROD®MOBILE ANTENNAS HIGH BAND

## **NLA** SERIES

The most popular and best selling 3/8" mount model, bar none. Delivers top performance and the best looking, roof hugging installation on snap-in type hardware such as RCA, GE, ASP, etc.; but does NOT require the bulky black insulator. Proved... practical... a great performer.

- 2 frequency range models available, 144-174 MHz and 200-265 MHz.
- Mates with NLA-K Body Mount for complete installation on vehicle Roof/Trunk/Fender or on NLA style Magnetic, Trunk Lid, Gutter or other temporary mounts.
- Rod cutting chart supplied for specific frequencies and allen wrench for whip mounting.
- NLA Series Antennas also fit BAM hardware. See page 33 for BAM Cowl adjustable mounting.

## 144-174 MHz 200-265 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender or body mounting order:

NLA-150-K	for 144-174 MHz use.
NLA-220-K	for 200-265 MHz use.

### For NLA Antenna Only order:

(no mounting hardware)

NLA-150	for 144-174 MHz use.
NI A-220	for 200-265 MHz use.

## For Body Mount Installation Kit only order: (no antenna)

NLA-K... Mount comes complete with 17' RG-58 A/U coax, PL-259 plug and full instructions.

#### Adapter Available . . .

for NLA Series to fit BSA-K and BA type hardware. See page 33.





**GUTTER CLAMP** 

NLA-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for NLA antenna order NLA-GC.



TRUNK LID

NLA-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NLA antenna order NLA-TLM.



Permanent Body Mount

NLA-\*-K

NLA-K Mount requires 3/8" hole in vehicle for simplest, lowest silhouette, snap-in type mounting available anywhere.



TRUNK GUTTER

NLA-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NLA antenna order NLA-TMB



MAGNETIC MOUNT

NLA- \* -MM

for complete antenna and Magnetic mount.

For Magnetic mount only for NLA antenna order NLA-MM.

🖈 Fill in frequency model needed. Examples: NLA-150-GC, NLA-220-TLM, NLA-150-TMB, etc.

# LARSEN KULROD®MOBILE ANTENNAS HIGH BAND

## **NMO** SERIES

Antenna designed specifically to mate with the popular Motorola TAD and TAE type mounting hardware to give a top performance and soundly engineered design for roof hugging appearance.

- Mates with NMO-K Body Mount for complete installation on vehicle Roof/Trunk/Fender or on NMO style Magnetic, Trunk Lid, Gutter or other temporary mounts.
- Available in models for both 144-174 MHz and 200-265 MHz ranges.
- Supplied complete with cutting chart and allen wrench for whip mounting.

144-174 MHz 200-265 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender or body mounting order:

NMO-150-K	foi	r 144-174	MHz	use.
NMO-220-K	foi	r 200-265	MHz	use.

### For NMO Antenna only order:

(no mounting hardware)

NMO-150	 for 144-174 MHz ι	use.
NMO-220	 for 200-265 MHz ι	use.

## For Body Mount Installation Kit only order: (no antenna)

NMO-K . . . Mount comes complete with 17' RG-58 A/U coax factory attached, plus connector plug and full mounting instructions.

#### **Adapters**

NMO to BSA Mount NMO to BAM Mount See page 33.





**GUTTER CLAMP** 

NMO-\*-GC

for complete antenna and Gutter Clamp mount

For Gutter Clamp mount only for NMO antenna order NMO-GC.



TRUNK LID

NMO-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NMO antenna order NMO-TLM.



Permanent Body Mount

NMO-\*-K

NMO-K Mount requires 3/4" hole in vehicle. Provides roof hugging installation and positive ground connection for top performance and maximum mechanical rigidity.



TRUNK GUTTER

NMO- \* - TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NMO antenna order NMO-TMB.



MAGNETIC MOUNT

NMO-\*-MM

for complete antenna and Magnetic mount.

For Magnetic Mount only for NMO antenna order NMO-MM.

# Fill in frequency model needed. Examples: NMO-150-GC, NMO-220-TLM, NMO-150-TMB, etc.

# LARSEN KÜLROD®MOBILE ANTENNAS HIGH BAND

## LM SERIES

Designed to mate with the Larsen LM Mount to provide a rugged, roof-hugging installation with high efficiency ground plane contact for full antenna gain potential. Preferred by many installers for its ease and flexibility of application.

- Mates with LM-K Body Mount for a perfect fit on Roof/Trunk/Fender or on LM style Magnetic, Trunk Lid, Gutter or other temporary mounts.
- Also mates with Larsen JM-K as well as new GE mount and others having 5/16"x24 stud.
- Rod cutting chart supplied so you get lowest V.S.W.R. on any specific frequency. Allen wrench for rod mounting provided.

## 144-174 MHz 200-265 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender or body mounting order:

### For LM Antenna only order:

(no mounting hardware)

## For Body Mount Installation Kit only order: (no antenna)

LM-K... Mount comes complete with 17' RG-58 A/U coax, PL-259 plug and fully illustrated instructions. Coax is factory attached to the mount.





**GUTTER CLAMP** 

LM-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for LM antenna order LM-GC.



TRUNK LID

LM-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for LM antenna order LM-TLM.



Permanent Body Mount

LM-\*-K

LM-K Mount requires 3/4" hole in vehicle. Only 3 simple parts go on quickly following easy step by step instructions



TRUNK GUTTER

LM-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for LM antenna order LM-TMB.



MAGNETIC MOUNT

LM-\*-MM

for complete antenna and Magnetic mount.

For Magnetic Mount only for LM antenna order LM-MM.

Fill in frequency model needed. Examples: LM-150-GC, LM-220-TLM, LM-150-TMB, etc.

# LARSEN KÜLROD®MOBILE ANTENNAS HIGH BAND

## LA/JM SERIES

Note: The JM Antenna is directly interchangeable with the Larsen LA model and is designated as the LA/JM model. Both mount on a 5/16"x24 stud.

Designed to mate with the patented JM Mount or any mount that provides a 5/16" x 24 thread stud such as the LA snap-in style of mount. The slender tapered configuration presents minimum wind drag.

- Models available for both 150 and 200 MHz ranges.
- Rod cutting chart supplied for each frequency plus allen wrench for whip mounting.
- Mates with either LA-K or JM-K Body Mount for complete installation on vehicle Roof/Trunk/Fender or on LM style Magnetic, Trunk Lid, Gutter or other temporary mounts.

144-174 MHz 200-265 MHz

For Complete Antenna and Mounting Kit for permanent roof, fender or body mounting order:

LA-150-K	for 144-174 MHz use.
LA-220-K	for 200-265 MHz use.
JM-150-K	for 144-174 MHz use.
JM-220-K	for 200-265 MHz use.

### For LA or JM Antenna only order:

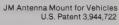
(no mounting hardware)

LA-150	for 144-174 MHz use.
LA-220	for 200-265 MHz use.
JM-150	for 144-174 MHz use.
JM-220	for 200-265 MHz use.

## For Body Mount Installation Kit only order: (no antenna)

Either the LA-K or JM-K. Both require 3/8" hole in vehicle and are designed for complete blind mounting from exterior of vehicle.

LA-K and JM-K Mounts come complete with 17' RG-58 A/U coax, PL-259 plug and full instructions for easy step-by-step mounting.





**GUTTER CLAMP** 

LM-GC

To get
Gutter Clamp mount
for LA/JM antenna
order LM-GC.



TRUNK LID

LM-TLM

To get Trunk Lid mount for LA/JM antenna order LM-TLM.



Permanent Body Mounts

LA-\*-K

or

JM- \*-K

Fill in frequency model needed.



TRUNK GUTTER

LM-TMB

To get
Trunk Gutter mount
for LA/JM antenna
order LM-TMB.



MAGNETIC MOUNT

LM-MM

To get Magnetic Mount for LA/JM antenna order LM-MM.

\* LA/JM antennas fit LM series temporary mounts. Order mount and antenna separately.

# LARSEN KULROD®MOBILE ANTENNAS UHF

## MOBILE GAIN ANTENNAS

## Deliver full 5 db GAIN over 1/4 wave whip!

- Models for 5 different vehicle permanent mounts and a variety of temporary mounts.
- Full frequency coverage in 6 ranges from 406 MHz to 512 MHz.

406-420 MHz...420-440 MHz 440-460 MHz...450-470 MHz 470-490 MHz...490-512 MHz

The Larsen UHF Kūlrod Gain Antenna uses a collinear design that aims the signal at the horizon for maximum effectiveness and an effective power gain . . . a gain that you can HEAR. The antenna phasing coil is engineered so as to minimize wind drag and antenna rod distortion at high vehicle speeds. It, and the base loading coil, are fully waterproofed including for the wettest place in the U.S. . . . the Olympic Rain Forest where they were field tested.

#### With Larsen UHF Mobile Antennas you get:

- The greater radiation efficiency of exclusive Kulrod.
- Extremely low V.S.W.R.... less than 1.5 to 1.
- A unit that is an exact match for every popular style of mounting hardware.
- No coils to tune ... just cut the lower section of the whip following the furnished cutting chart.

## Handles a full 150 watts of output power.

- Comes complete with allen wrench and measuring rule.
- Maximum rod length 31" (787 mm)

#### \*\*Special Frequency Needs ...

Larsen Antennas are available to cover 406-512 MHz in 6 different frequency ranges. Inquire of factory for specific needs not covered by the frequency ranges shown on the following pages.

For mechanical details... Base dimensions appear on page 2.



## LARSEN KULROD®MOBILE ANTENNAS

# UHF

## **NLA** SERIES

For low silhouette, roof hugging good looks this model can't be beat. Delivers a difference that you can HEAR, too. Mates with the popular snapin type hardware such as RCA, GE, ASP, etc. but does not require the bulky black-ball insulator. Weatherproof, tough, durable and a great performer.

- Available in six models to cover 406-512 MHz. Other frequencies on special order. Inquire of factory.
- Mates with Larsen NLA-K Body Mount for complete installation on vehicle Roof/Trunk/ Fender and with temporary mounts as shown below.
- Rod cutting chart, allen wrench and measuring rule supplied for adjusting to any frequency with low, low V.S.W.R.
- NLA Series Antennas also fit BAM hardware. See page 33 for BAM Cowl adjustable mounting.
- Optional narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance. See page 35.







406-420 MHz 420-440 MHz 440-460 MHz 450-470 MHz 470-490 MHz 490-512 MHz

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for the six frequency ranges shown above.

To order, specify the **low** number of the range desired.

Example:

NLA-450-K . . . . . . . . . . . . . . . . . for 450-470 MHz use.

To order the NLA Antenna only (no mounting hardware) specify the low number of the range desired.

Example:

NLA-450 . . . . . . . . . . . . . . . . . for 450-470 MHz use.

For Body Mount Installation Kit only (no antenna) order:

NLA-K . . . Mount comes complete with 17' RG-58 A/U coax, PL-259 connector and full instructions.

#### Adapter Available . . .

for NLA Series to fit BSA-K and BA type hardware. See page 33.



**GUTTER CLAMP** 

NLA-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for NLA antenna order NLA-GC.



TRUNK LID

NLA-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NLA antenna order NLA-TLM.



Permanent Body Mount

NLA-\*-K

NLA-K Mount requires 3/8" hole in vehicle for simplest, very low silhouette installation using snap-in type hardware.



TRUNK GUTTER

NLA-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NLA antenna order NLA-TMB.



MAGNETIC MOUNT

NLA-\*-MM

for complete antenna and Magnetic mount.

For Magnetic mount only for NLA antenna order NLA-MM.

🖈 Fill in frequency model needed. Examples: NLA-450-GC, NLA-440-TLM, NLA-450-TMB, etc.

## LARSEN KÜLROD®MOBILE ANTENNAS

shock

spring.

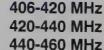
See

# UHF

## **NMO** SERIES

This Larsen Antenna was designed specifically to mate with the popular Motorola TAD and TAE type mounting hardware. It delivers proved superior performance with low silhouette and rugged dependability. You also get the desired gain that makes an important difference in communicating.

- Mates with Larsen NMO-K Body Mount for a complete installation on vehicle Roof/Trunk/ Fender and with temporary mounts as shown below.
- Comes complete with cutting chart, measuring rule, instructions and allen wrench for whip installation.
- Optional narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance. See page 35.



450-470 MH=

450-470 MHz

470-490 MHz

490-512 MHz

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for the six frequency ranges shown above.

To order, specify the **low** number of the range desired.

Example:

NMO-450-K ......for 450-470 MHz use.

To order the NMO Antenna only (no mounting hardware) specify the low number of the range desired.

Example:

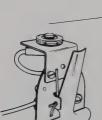
NMO-450 ......for 450-470 MHz use.

For Body Mount Installation Kit only (no antenna) order:

NMO-K . . . Mount comes complete with 17' RG-58 A/U coax, PL-259 connector and full instructions.

#### **Adapters**

NMO to BSA Mount NMO to BAM Mount See page 33.



**GUTTER CLAMP** 

NMO-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for NMO antenna order NMO-GC.



TRUNK LID

NMO-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for NMO antenna order NMO-TLM.



Permanent Body Mount

NMO-\*-K

NMO-K Mount requires 3/4" hole in vehicle. Provides a roof hugging installation and positive connection to the ground plane.



TRUNK GUTTER

NMO-\* TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for NMO antenna order NMO-TMB.



MAGNETIC MOUNT

NMO-\*-MM

for complete antenna and Magnetic mount.

For Magnetic mount only for NMO antenna order NMO-MM.

Fill in frequency model needed. Examples: NMO-450-GC, NMO-440-TLM, NMO-450-TMB, etc.

## LARSEN KULROD®MOBILE ANTENNAS

## LM SERIES

This exclusive Larsen design mates perfectly with the improved Larsen Mount to complete an installation that is both a performance and appearance winner. The roof gripping power of the mount assures a positive connection to the ground plane and the full gain potential of the collinear design.

- Available in six models to cover 406-512 MHz. Other frequencies on special order. Inquire of factory.
- Mates with Larsen LM-K Body Mount for perfect fit on Roof/Trunk/Fender and fits temporary mounts as shown below.
- Rod cutting chart, measuring rule and allen wrench supplied.
- Optional narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance. See page 35.







spring.

406-420 MHz 420-440 MHz 440-460 MHz 450-470 MHz 470-490 MHz 490-512 MHz

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for the six frequency ranges shown above.

To order, specify the low number of the range desired.

Example:

LM-450-K . . . . . . . . . . . . . for 450-470 MHz use.

To order the LM Antenna only (no mounting hardware) specify the low number of the range desired.

Example:

LM-450 . . . . . . . . . . . . . . . . for 450-470 MHz use.

For Body Mount Installation Kit only (no antenna)

LM-K... Mount comes complete with 17' RG-58 A/U coax. PL-259 connector and full instructions.





**GUTTER CLAMP** 

LM-\*-GC

for complete antenna and Gutter Clamp mount.

For Gutter Clamp mount only for LM antenna order LM-GC.



TRUNK LID

LM-\*-TLM

for complete antenna and Trunk Lid mount.

For Trunk Lid mount only for LM antenna order LM-TLM.



Permanent **Body Mount** 

LM-\*-K

LM-K Mount has only 3 simple parts for rugged, fully weatherproof installation. Requires 3/4" hole in vehicle.



TRUNK GUTTER

LM-\*-TMB

for complete antenna and Trunk Gutter mount.

For Trunk Gutter mount only for LM antenna order LM-TMB.



MAGNETIC MOUNT

LM- \* -MM

for complete antenna and Magnetic mount.

For Magnetic Mount only for LM antenna order LM-MM.

Till in frequency model needed. Examples: LM-450-GC, LM-440-TLM, LM-450-TMB, etc.

## LARSEN KULROD®MOBILE ANTENNAS UHF

## LA/JM SERIES

Note: The Larsen JM Antenna is directly interchangeable with the Larsen LA model and is designated as the LA/JM model. Both mount on a 5/16" x 24 stud.

#### **Larsen Exclusive Patented Design**

This Larsen high performance antenna was designed specifically to mate with the patented Larsen JM mount to give an appearance and performance second to none. It also mates with any mount that provides a 5/16" x 24 thread stud such as the LA model as shown below.

- Available in six models to cover 406-512 MHz. Other frequencies on special order, Inquire of factory.
- Mates with JM-K body mount for complete permanent installation on Roof/Trunk/Fender and with the temporary mounts as shown below.
- Rod cutting chart, measuring rule and allen wrench for whip mounting are supplied.
- Optional narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance. See page 35.









406-420 MHz 420-440 MHz 440-460 MHz 450-470 MHz 470-490 MHz 490-512 MHz

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for the six frequency ranges shown above.

To order, specify the low number of the range desired.

Examples:

LA-450-K ......for 450-470 MHz use. JM-450-K ......for 450-470 MHz use.

To order LA or JM Antennas only (no mounting hardware) specify the low number of the range desired.

Examples:

LA-450 ......for 450-470 MHz use. JM-450 ..... for 450-470 MHz use.

For Body Mount Installation Kit only (no antenna) order: LA-K or JM-K. Both require 3/8" hole in vehicle and are designed for complete blind mounting from exterior of vehicle.

> JM Antenna Mount for vehicles U.S. Patent 3,944,722





**GUTTER CLAMP** 

LM-GC

To get **Gutter Clamp mount** for LA/JM antenna order LM-GC



**TRUNK LID** LM-TLM

To get Trunk Lid mount for LA/JM antenna order LM-TLM.



JM-K Permanent **Body Mounts** 

JM- \* -K

LA- \*-K

Fill in frequency model



## TRUNK GUTTER

LM-TMB

To get Trunk Gutter mount for LA/JM antenna order LM-TMB.



MAGNETIC MOUNT

LM-MM

To get Magnetic mount for LA/JM antenna order LM-MM

needed. LA/JM antennas fit LM series temporary mounts. Order mount and antenna separately.

# LARSEN KÜLROD®MOBILE ANTENNAS 800 MHz

## NMO SERIES

## Deliver full 5 db GAIN over 1/4 wave whip!

This Larsen Antenna was designed specifically to mate with the popular Motorola TAD and TAE type mounting hardware. It delivers proven superior performance with low silhouette and rugged dependability. You also get the desired gain that makes an important difference in communicating.

- Mates with Larsen NMO-LLK Body Mount for a complete installation on vehicle Roof/Trunk/Fender and with temporary mounts as shown below.
- Includes narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance.

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for all six frequency ranges shown above.

To order, specify the low number of the range desired.

Example:

NMO-800-LLK .....for 800-860 MHz use.

To order the NMO Antenna only (no mounting hardware) specify the low number of the range desired.

Example:

NMO-800 . . . . . . . . . . . for

800-860 MHz use.

For Body Mount Installation Kit only (no antenna) order: LM-LLK ..... Mount comes complete with 17' AA-3096 coax. PL-259 connector and full instructions. Add suffix "N" to get kit with N connector instead of PL-259.



Permanent **Body Mount** 

## NMO - \* - LLK

**NMO-LLK Mount requires** 3/4" hole in vehicle. Provides a roof hugging installation and positive connection to the ground plane.

Fill in frequency model needed. Example: NMO-800-LLK

800-860 MHz

## LM SERIES

## Deliver full 5 db GAIN over 1/4 wave whip!

This exclusive Larsen design mates perfectly with the improved Larsen Mount to complete an installation that is both a performance and appearance winner. The roof gripping power of the mount assures a positive connection to the ground plane and the full gain potential of the collinear design.

- Available for 800-860 MHz band. Other frequencies on special order. Inquire of factory.
- Mates with Larsen LM-LLK Body Mount for perfect fit on Roof/Trunk/Fender and fits temporary mounts as shown below.
- Includes narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance.

Complete Antenna and Mounting Kit for permanent roof, fender or body mounting available for all six frequency ranges shown above.

To order, specify the low number of the range desired.

Example:

LM-800-LLK . . . . . for

800-860 MHz use.

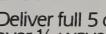
To order the LM Antenna only (no mounting hardware) specify the low number of the range desired.

Example:

LM-800 .....for

800-860 MHz use.

For Body Mount Installation Kit only (no antenna) order: LM-LLK ......Mount comes complete with 17' AA-3096 coax, PL-259 connector and full instructions. Add suffix "N" to get kit with N connector instead of PL-259.





## LM - \* - LLK

LM-LLK Mount has only 3 simple parts for rugged, fully weatherproof installation. Requires 3/4" hole in vehicle.

Fill in frequency model needed. Example: LM-800-LLK

## LARSEN KÜLROD"MOBILE ANTENNAS

# **QUARTER WAVE**

## 52-88 MHz 88-136 MHz 136-512 MHz

800-860 MHz

Larsen quarter wave mobile antennas are soundly engineered and quality built antenna systems that deliver a difference you can hear. Available in Low Band, High Band and UHF frequencies. All have whips of tough 17-7PH stainless steel precisely engineered with a diameter/length ratio that minimizes pending and detuning at high vehicle speeds. Every Larsen quarter wave antenna has the exclusive Kūlrod plating that assures maximum radiation efficiency and no loss through heat. Base is streamlined with low silhouette and roof-hugging appearance. Tapered anti-corona end-tip ball reduces chance of antenna hang up.

- Available in mounting styles that mate with a variety of permanent and temporary vehicle mounts.
- Maximum whip length: 52-88 54" (1.37 M) 88-136 - 33" (838.2 mm) 136 MHz - 20" (508 mm) 800 MHz - 3" (76.2 mm)
- Rod cutting chart and allen wrench for rod mounting included.
- Handles 200 watts of output power.
- V.S.W.R. less than 1.5 to 1 at charted frequency.

Low band and UHF kits include 17' of RG58 A/U coax, PL-259 connector and instructions. 800 MHz kits include 17' of AA-3096 coax, PL-259 or "N" connector (please specify) and instructions.



# CUARTER WAVE



Model Number	Frequency Range MHz	Radiating Element Dimensions	Replacement Whip Model No.	Fits Mounts	
Q-52	52-88	38 0.100"x54"T W-540		LM-K, JM-K	
Q-88	88-136	0.100"x33"	W-400	LA-K, LM-MM LM-GC, LM-TLM	
Q	136-512	0.070"x20"	W-200		
Q-800	800-860	0.100"x3"	W-030	LM-LLK	
NMOQ-52	52-88	0.100"x54"T	W-540	NMO-K, NMO-MM	
NMOQ-88	88-136	0.100"x33"	W-400	NMO-GC NMO-TLM	
NMOQ	136-512	0.070"x20"	W-200		
NMO <b>Q-800</b>	800-860	0.100"x3"	W-030	NMO-LLK	
NLAQ-52	52-88	0.100"x54"T	W-540	NLA-K, NLA-MM NLA-GC	
NLA <b>Q-88</b>	88-136	0.100"x33"	W-400	NLA-GC NLA-TLM	
NLAQ	136-512	0.070"x20"	W-200		
PQ	136-512	0.070"x20"	W-200	MM-PO, GC-PO BSA-K	
BNCQ	136-512	0.070"x20"	W-200	Any BNC Fem. Connector**	
HTQ	136-512	0.070"x20"	W-200	Fits Motorola HT Series Portables	

NOTES: "T" under rod dimensions indicates a tapered element \*\*Not recommended for rugged usage.

To determine model number for complete antenna with kit, just combine the BOLD FACED information from the Model Number column and the Mounting Kits column. For example the Q-52 antenna with LM-MM mounting kit would be LMQ-52-MM.

## LARSEN KÜLDÜCKIET PORTABLE ANTENNAS

Flexible...Convenient...Rugged Antennas for Hand-Held and Portable Radios

## LARSEN KŪLDUCKIE™ PORTABLE ANTENNAS

The quality, performance and reliability associated with Larsen Antennas is readily evident when your portable or hand-held feeds into a Larsen Külduckie Antenna.

**Rugged** . . . withstand 180° bend in all directions . . . torque resistance exceeds 20-inch-pounds (stud to antenna element).

**Efficient** ... VHF and UHF models wound with .042 highly flexible wire . . . **then plated for maximum radiation efficiency** with high conductivity metals. UHF ¼ wave models of high carbon steel, flexible shaft core.

**Reliable** . . . protected by heavy duty coating of shrink tubing to prevent detuning with coil shorting.

Accurate . . . precision tuned for lowest V.S.W.R.

All Weather Protected . . . against moisture and other environmental concerns. Stays flexible to  $-30^{\circ}$ F.

#### **SPECIFICATIONS:**

- Handles full 25 watts.
- Models for both VHF and UHF frequencies.
- Impedance 50 ohms (nominal).
  Will vary with ground plane provided by individual portable.
- Every antenna color coded.



Exterior PVC coating gives Larsen Kūlduckie™ portable antennas a sleek finish, but doesn't contact the radiating element and cause dielectric losses.

Larsen protects the radiating element with a double layer of special low dielectric loss, heat-shrinkable tubing for maximum protection and performance.

Maximum efficiency copper plated radiating element uses power to communicate. Non-plated elements have high resistivity to RF energy, causing dielectric losses.

Larsen solders the electrical connection and covers it with a copper jacket, then floods it with solder. This gives double protection at the point of maximum stress. The copper jacket takes the abuse, not the solder joint.

Larsen uses silver plated steel pins or durable top quality plated brass connections for longer life.

# LARSEN KULDUCKIE PORTABLE ANTENNAS

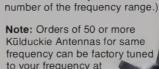
FOR THES RADIO TYPES	E 0	MOTOROLA All HT, MT, and MF Types	MOTOROLA MX Type	ANY RADIO WITH TNC OUTPUT WILSON TAMAPHONE	WITH BNC OUTPUT WILSON	GENERAL ELECTRIC PE Series MVP Series	GENERAL ELECTRIC PR Series	RCA REPCO STANDARD	GENERAL ELECTRIC MPR OUTPUT	ANY RADIO WITH SO-239	REPCO RPX
VHF & L PORTAE ANTENN HELICAL 1	BLE NAS										The second second
MODEL N SERIES DESIG	e Shathali	K <b>0</b> -1	XD-1	KD-5	KD-	KD+E	KO-ú	KD-7	KD-6	коэ	KD-19
ANTENNA	TYPE	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL
THREAD	SIZE	<sup>5</sup> / <sub>16</sub> "x32 TDS <sup>1</sup> / <sub>2</sub> " Long	1/4"x32 TDS 3/16" Long	Standard TNC Male	Standard BNC Male	7/16"x40 TDS Female	1/4"x32 TDS 3/8" Long	5/ <sub>16</sub> "x32 TDS 3/8" Long	#12 x 28 TDS	Standard PL-259 Conn.	1/4"x28x1" Stud
	Blue	136-142	136-142	136-142	136-142	136-142	136-142	136-142	136-142	136-142	136-142
MHz REQUENCY RANGES	Green	142-150	142-150	142-150	142-150	142-150	142-150	142-150	142-150	142-150	142-150
VAILABLE & OLOR CODE	Yellow	150-162	150-162	150-162	150-162	150-162	150-162	150-162	150-162	150-162	150-162
(Printed on Cap)	Red	162-174	162-174	162-174	162-174	162-174	162-174	162-174	162-174	162-174	162-174
	Orange	406-420	406-420	406-420	406-420	406-420	406-420	406-420	406-420	406-420	406-420
	Yellow	450-470	450-470	450-470	450-470	450-470	450-470	450-470	450-470	450-470	450-470
	Green	470-512	470-512	470-512	470-512	470-512	470-512	470-512	470-512	470-512	470-512
UHF PORTAE ANTENN 1/4 WAVE 1	BLE NAS										
MODEL HI ENIES CESIG		KD-11	KD-12	KD-10	KD-14	KD-15	KD-16	KD-17	KD-18	KD-19	KD-20
ANTENNA	TYPE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE	1/4 WAVE
THREAD	SIZE	5/16"x32 TDS 1/2" Long	1/4"x32 TDS 3/16" Long	Standard TNC Male	Standard BNC Male	7/ <sub>16</sub> "x40 TDS Female	1/4"x32 TDS 3/6" Long	5/16"x32 TDS 3%" Long	#12 x 28 TDS	Standard PL-259 Conn.	1/4"x28x1" Stud
Hz RANGES &		406-512	406-512	406-512	406-512	406-512	406-512	406-512	406-512	406-512	406-512

## How to select a Kulduckie Antenna from the chart above:

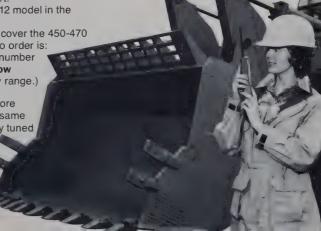
- Locate your Radio or Connector type in one of the ten boxes across the top of the chart.
- Determine the frequency you operate on VHF or UHF.
  - a. If VHF, the appropriate Helical type antenna illustration and model (KD-1, etc.) are shown next.
  - b. If you wish a UHF, you have the choice of the Helical type (KD-1 through KD-10) or a ¼ wave type (KD-11 through KD-20) as shown across the lower part of the chart in the shaded area.
- 3. Finally, you select the MHz frequency range you operate on.

#### Example:

You have an MX Type Motorola radio (top of second column). You want a UHF ¼ wave antenna. The 1/4 wave antennas are shown across the lower part of the chart. Your antenna is the KD-12 model in the second column. You want an antenna to cover the 450-470 MHz range. The model to order is: KD-12-406 (The model number KD-12 followed by the **low** 



to your frequency at no extra cost.



# LARSEN KULROD®MOBILE ANTENNAS PORTABLE

## **PORTABLE**

## PO-150 MODEL

Covers 144-174 MHz Does Not Require a Ground Plane

The Larsen PO-150 is a 5/8 wave, base loaded antenna working at ground potential and designed to give superior performance even when there is no ground plane to work against. And it does this with very acceptable V.S.W.R. and real communications efficiency. It's built with heavy duty exclusive Larsen Kūlrod whip and hi-impact base coil construction.

The Larsen PO-150 is ideal for installation on fiberglass vehicle roofs; for improved portable operations; for boats, recreation vehicles, farm machinery and the like.

- Rugged and dependable.
- Fits any standard PL-259 antenna socket as found on most portables.
- Full 5 MHz band width.
- Handles a full 200 watts.

#### The PO-150 as a GAIN Antenna!

Combine the Larsen PO-150 Antenna with an adequate ground plane and it becomes a GAIN ANTENNA for even better performance...up to 3 db gain over a 1/4 wave whip!

The Larsen PO-150 Antenna mates with ...

Larsen BSA-K hardware for a complete Base Station installation.

Larsen SB-K hardware for sail or motor boat installation.

SO-239 Type bases such as are found on many portables and some

**SO-239 Type bases** such as are found on many portables and some mobile units. Also with the Larsen BA Bulkhead adapter.



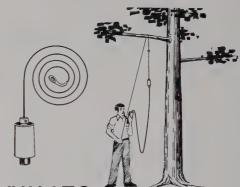
Improve The Performance of Portables or Hand Helds. With Kūlrod, the PO-150 improves the performance of hand helds equipped with "rubber duckie" antennas. But for real communications improvement combine the PO-150 with the BSA-K kit and you get fantastic gain. You will HEAR the difference.

## MHW-150 MODEL

## Mobile 1/2 Wave Antenna Covers 144-148 MHz

This half-wave antenna combines the best of the PO-150 and the OM-150-K antennas. It can be used without a ground plane like the OM, but is like the PO-150 in physical configuration so it fits any female UHF connection such as Larsen's BSA-K, BA and BA-K mounting kits and many makes of radios.

## PORTABLE/ EMERGENCY ANTENNA



PHW-150 MODEL

- Covers 144-174 MHz
- Requires No Ground Plane
- Very Portable . . . fits in your pocket.

The PHW-150 is a loaded half-wave antenna that features a stainless steel flexible radiating element that allows the PHW to be rolled up to a compact size for easy portability.

When needed, you just attach a length of nylon fishing line to the antenna's eyelet, attach a weight to the other end of the line and heave the weight over a tree limb. You then simply hoist the PHW into the air using the fish line. The PHW is connected to your radio with any length of coaxial cable. It's like having a base antenna and tower in your pocket.

The PHW-150 can give a portable as much as 20 db gain when compared to the portable's normal antenna.

The PHW antenna comes without fishline, weight, and coaxial cable.

The PHW series antennas are available in low band frequencies, but their applications are limited due to the length of the radiating element (approx. 5613/FREQ = length in inches). For example, at 42 MHz, the element would be approximately 134". Because of their limited application, low band PHW's are made to order. Please contact factory for details on pricing and delivery.

# LARSEN KULROD®MOBILE ANTENNAS OMNI

## **OMNI** SERIES

For quick, easy, practical mounting on fiberglass roofs, boat decks, truck tops, recreational vehicles or wherever there is no ground plane; or the thickness of the mounting material prohibits usual vehicle mounts. A real break-thru in antenna design and convenience delivering good looks and top performance.

### Requires no ground plane!

- Mounting flange and base loading coil housing in a single, sealed, weatherproof unit.
- Handles a full 150 watts output power.
- Mounting instructions, cutting chart, mounting screws all furnished.
- Available in models for High Band and U.H.F.

#### OM-150-K

- Base loaded 1/2 wave antenna.
- Delivers unity gain without a ground plane.
- Delivers 2 to 2.5 db gain over a quarter wave whip with ground plane of 1/2 wave or more radius.
- For 144-174 MHz use order OM-150-K.

#### OM-450-K

- Collinear Antenna with phasing coil.
- Delivers 2 db gain without a ground plane.
- Delivers 4 db gain over a quarter wave whip with a ground plane of 24" or more radius.
- For 450-470 MHz use order OM-450-K.









Comes with coax (17' RG 58 A/U) assembled to the coil/mount.

## LARSEN OMNI DIRECTIONAL ANTENNAS BASE STATION

## FB1-136 MODEL

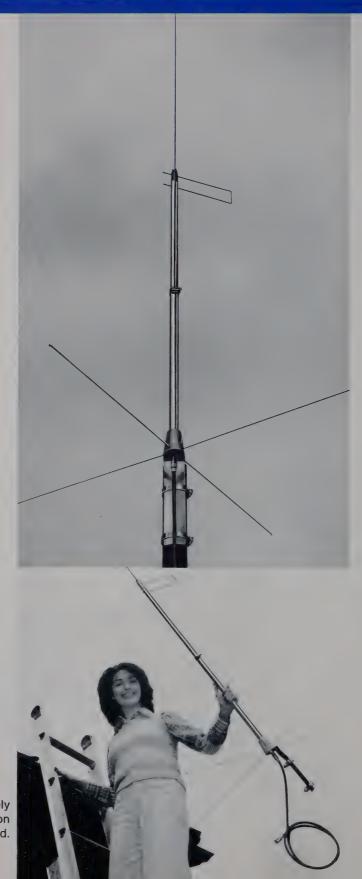
## 136-230 MHz coverage with a single unit!

With the Larsen FB1-136 Fixed Base Antenna, a wide range of frequencies (94 MHz) can be accommodated by a single unit. This simplifies inventory problems and increases the installations you can easily handle from stock.

- Handles full 500 watts of power.
- VSWR is less than 1.5 to 1 over 5 MHz bandwidth at any frequency setting.
- Provides 3.6 db Gain over 1/4 wave ground plane.

### **DESIGN FEATURES:**

- Only three simple adjustments necessary to get optimum operations on any frequency within the desired range. Adjustment chart provided.
- Whip is tapered, heavy gauge exclusive Kūlrod® construction for maximum radiation efficiency. Ground radials are also Kūlrod® plated.
- Electrically grounded for safety and reduction of static build-up.
- Mounting bracket is Iridite plated to resist rust.
- Antenna connection accepts standard PL-259 connector.
- Clamps to any size pole from 3/4" to 1-1/2" diameter.
- Weighs only 2 pounds 3 ounces.



Can be completely assembled and adjusted on the ground.

# LARSEN KULROD®BASE ANTENNAS BASE STATION

## **BSA** SERIES

A complete base station antenna kit that is easy to install and gives top performance. It combines the proved Larsen Kūlrod mobile antenna with the necessary hardware to mount on a pole or tower.

- Heavily plated steel mounting hardware resists rust and corrosion.
- Weighs less than 1.5 pounds . . . has nearly zero wind resistance.
- Handles full 200 watts.
- Has low, low V.S.W.R... less than 1.5 to 1.
- Models available for all popular frequencies in the VHF and UHF bands.
- Mount mates with standard PL-259 plug for coax connection.
- Gain 2.5 db at VHF Frequencies . . . 4.5 db at UHF Frequencies (compared to standard 1/4 wave whip).

## ORDER THE LARSEN KÜLROD BASE STATION ANTENNA TO COVER DESIRED FREQUENCY OF OPERATION...

Frequency covered	Type of Antenna
40-50 MHz	Base loaded 1/4 wave
144-174 MHz	Base loaded 5/8 wave
406-420 MHz	Collinear
440-460 MHz	Collinear
450-470 MHz	Collinear
	40-50 MHz 144-174 MHz 406-420 MHz 440-460 MHz

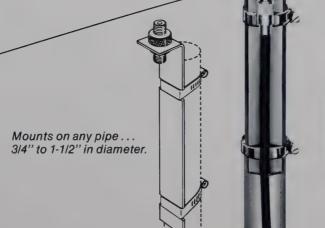
All above antennas come complete with ground radials, mounting hardware, mounting and tuning instructions, allen wrench for attaching radials plus clamps for attaching to pole.

#### **Mounting Hardware Only**

The Larsen BSA-K base station kit is available **less** antenna. It mates with the NLA Series or the PO Series. It also mates with NMO models when proper adapter is used. See page 12.

For Base Station Mounting Kit without antenna order BSA-K.

The Larsen BSA-K antennas have great potential for monitoring applications, with scanners and many other Specialized Applications. Their easy and quick installation make them ideal for many temporary set-ups.



The BSA-K can be used with PQ antenna (pg 19) to form a 1/4 wave ground plane antenna with unity gain.

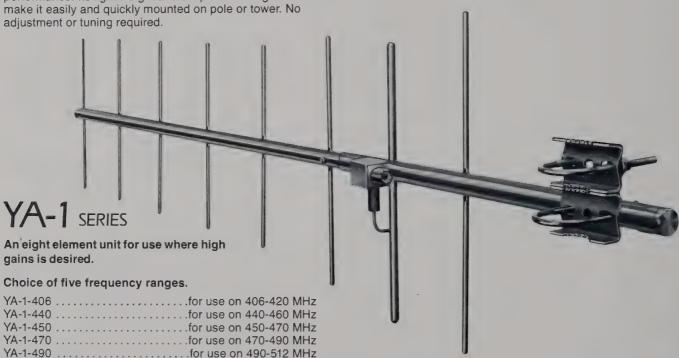
# YAGI'S

## The Larsen YAGIS

All Weather Ruggedness ... Superior Performance

The Larsen Yagis cover the most popular frequency bands in the 406 to 512 MHz range. Constructed of heavy duty aluminum, they have an extra durable and highly conductive alodyne finish. This distinctive gold coating protects the aluminum from corrosive build-up without harming performance.

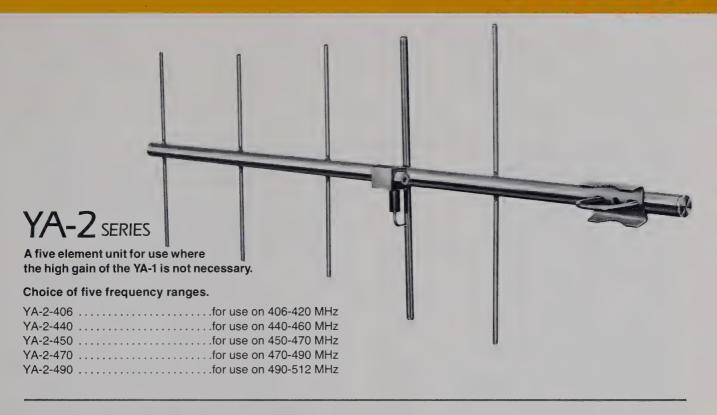
A unique method of staking the antenna elements to the boom provides trouble free electrical and mechanical performance. Its light weight and simple mounting mechanics make it easily and quickly mounted on pole or tower. No adjustment or tuning required



#### **Electrical and Mechanical Specifications:**

Bandwidth	
VSWR	Less than 1.5 to 1
Impedance	
Forward Gain	11 db
Front to Back Ratio	23 db
Maximum Power	
Feed Connection	Integrally mounted SO-239 to accept PL-259 Plug
Lightning Protection	Direct Ground
Horizontal Beamwidth	
Vertical Beamwidth	
Elements	Solid Aluminum Rod
Boom Material	Heavy duty aluminum %" and 34" O.D. 53" Long
	Heavy Duty U bolts double welded to accommodate up to 1%" O.D. pipe
Weight	2.4 l bs. Max. at lowest freq

# LARSEN DIRECTIONAL BASE ANTENNAS YAGI'S

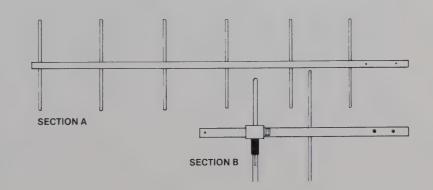


#### **Electrical and Mechanical Specifications:**

Bandwidth	All models as specified above
VSWR	Less than 1.5 to 1
Impedance	50 Ohms
Forward Gain	8.5 db
Front to Back Ratio	20 db
Maximum Power	300 Watts
Feed Connection	Integrally mounted SO-239 to accept PL-259 Plug
Lightning Protection	Direct Ground
Horizontal Beamwidth	
Vertical Beamwidth	
Elements	Solid Aluminum Rod
Boom Material	
Mounting HardwareHeav	
Weight	
Troight	THE PROPERTY OF THE PROPERTY O

## Packaged for convenient shipping and storage.

The YA-1 Yagi comes in two sections which must be joined before mounting. This is done easily and quickly with a screwdriver. Selftaping screw is included.



# LARSEN KÜLROD®MOBILE ANTENNAS MOUNTS

## TLM SERIES

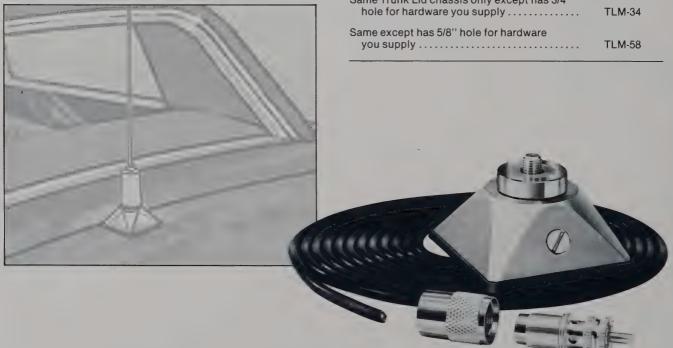
## TRUNK LID MOUNT

Gives you a "no holes" trunk lid installation that is practical, good looking and easy to install.

- Finished in high chrome for great appearance.
- Clamping bracket of heavy gauge steel.
- Stainless steel, hollow head, allen head set-screws clamp to underside of trunk lid for real hold.
- Car finish fully protected.
- Models available to fit all popular antennas including Larsen, RCA, Motorola, GE, ASP, etc.
- Comes complete with 17' of RG-58 A/U coax factory attached to mount plus coax connector.

. NLA-TLM
. LM-TLM
. NMO-TLM
. PO-TLM
g . TLM-38
. TLM-34
. TLM-58

**Order Larsen** 



# LARSEN KÜLROD®MOBILE ANTENNAS MOUNTS

## MM SERIES

## MAGNETIC MOUNT with Super Hold!

The secret of the Larsen Magnetic Mount lies in the carefully engineered heavy duty magnets. A recent improvement in the mount insures flatness of the magnetic assembly for increased holding power. Also, the reinforced capacitive coupling improves the lifespan. Finally, a new "rubber like" outer covering decreases the chance that the mount might harm the paint finish. These mounts are guaranteed to stay put at all legal vehicle speeds with 5/8 wave gain antenna attached.

- Roof-hugging low silhouette.
- Grips to any ferrous metal surface.
- Magnets guaranteed permanent in all ordinary use.
- Large surface area assures adequate capacitive coupling to ground plane.
- Tough, marbleized, all-weather finish.

## MATCH THE MOBILE ANTENNA YOU WILL USE WITH THE LARSEN MAGNETIC MOUNT THAT IS A DIRECT FIT.

Order Larsen Magnetic Mount Model:

All Larsen LA, JM and LM Models	LM-MM
All Larsen NLA Models	NLA-MM
All Larsen NMO Models	NMO-MM
All Larsen PO-150 and others with	
PL-259 Type Base	PO-MM

All makes with 5/16"x24 female thread in base; such as, RCA, 1 M-MM Motorola TAD and TAE series and

other compatible antennas .....

All above models come completely assembled ready to accept the mobile antenna of your choice Unit includes attached 12' of RG-58 A/U coax and coax connector.

Mobile Antenna Models



#### MICROMINIATURE PLUG FOR MAGNETIC MOUNT ...

such as used on many hand-held portables is available as a substitute for the PL-259 type plug. To get this option add the suffix "M" to the Larsen Magnetic Mount designation. Example "NMO-M-MM" or "NLA-M-MM", etc. No change in price for the microminiature plug in place of regular plug.

# LARSEN KÜLROD®MOBILE ANTENNAS MOUNTS

## GC SERIES

## **GUTTER CLAMP MOUNT**

for Quick . . . Easy . . . Temporary Antenna Mounting

A great way for temporary antenna mounting without holes. Design provides a positive ground plane to assure full antenna efficiency.

- Clamps to any car or cab gutter for no-mar attachment.
- Unit easily adjusted for upright antenna on any style of gutter.
- Heavily plated for all weather protection.
- Comes completely assembled.

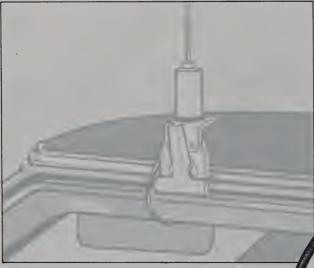
#### SIMPLE 1-2-3 AND TRANSMIT!

Just screw on the antenna of your choice . . . clamp to your car or truck . . . attach coax to your equipment and you're ready to go.

## 5 LARSEN GUTTER CLAMP MOUNTS AVAILABLE ... A MODEL TO FIT THE MOBILE ANTENNA OF YOUR CHOICE

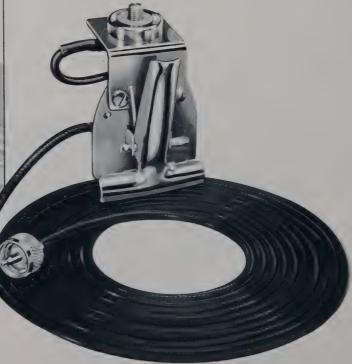
Antenna you will use with Gutter Clamp Mount	Order Larsen Gutter Clamp Model
All Larsen LA, JM and LM Models	LM-GC
All Larsen NLA Models	NLA-GC
All Larsen NMO Models	NMO-GC
All Larsen PO-150 Models and Others with PL-259 Type Base	PO-GC
All makes with 5/16"x24 female thread in base such as RCA, GE, A.S.P.	, LM-GC
Motorola TAD and TAE series and compatible A.S.P. models	NMO-GC
Larsen Quarter Wave Antenna and Gutter Clamp Mount	LMQ-GC

All above models come completely assembled ready to accept the mobile antenna of your choice. Unit includes 10' of RG-58 A/U coax and coax connector.



#### MICROMINIATURE PLUG FOR GUTTER CLAMP MOUNT

such as used on many hand held portables is available as a substitute for the PL-259 type plug. To get this option add the suffix "M" to the Larsen Gutter Clamp designation. Example "LM-GCM" or "NLA-GCM", etc. No change in price for the microminiature plug in place of regular plug.



# LARSEN KÜLROD®MOBILE ANTENNAS MOUNTS

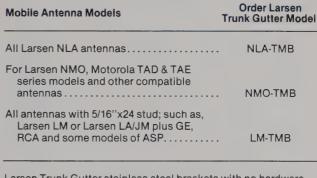
Mobile Antenna Models

## TMB SERIES

## TRUNK GUTTER MOUNT

Provides the simplest mounting of a mobile antenna. Stainless steel "L" bracket fastens with three stainless steel self-tapping screws to the inside of the trunk gutter or the engine hood. Goes on in minutes for a highly satisfactory installation that requires no 3/4 or 3/8 inch holes in the car body to depreciate value.

- Mounting bracket of heavy 18-gauge stainless steel.
- Comes complete with mounting screws, antenna mounting hardware and coax. PL-259 plug also included.
- Three models to fit all needs of popular makes.



Larsen Trunk Gutter stainless steel brackets with no hardware mounting provisions and with choice of 3/8" or 5/8" or 3/4" holes for use with mountings and antennas you supply, are available:

are available.	
Hole Size 3/8" 5/8" 3/4" For Larsen OM Series Antennas Required 3 sheet metal mounting s	Order Model No. TMB-38 TMB-58 TMB-34 TMB-OM screws are included.

## LARSEN KULROD®MOBILE ANTENNAS AMATEUR

## AMATEUR ANTENNAS

## Over 30 Band and Mounting Choices with Larsen.

No matter the need or application, Larsen has an antenna to meet the many VHF and UHF requirements of the Amateur Radio Service. These are antennas already proved in the commercial two-way radio field as the ones that let you HEAR the difference. For your own Larsen Kūlrod Antenna for the specific frequency you will operate on and using the type of mount that fits your fancy, check below. Then look to the specs and added ordering data on the reference pages.

### 6 Meters...50.0 to 54.0 MHz

The Larsen Kūlrod 2 meter (144-174 MHz), 5/8 wave antenna works as a base loaded 1/4 wave on 6 meters. Gives you a low profile, effective and efficient radiator. **See pages 7 thru 11 for styles and mounting options.** Order 150 MHz models (NMO-150-K, LM-150-K, etc.)

## 2 Meters...144 to 148 MHz

The most talked about and most used mobile antenna on the 2 Meter Band be it simplex or via repeater. This is the one that delivers the difference you can HEAR. **See pages 7 thru 11 for choice** of mounts either permanent or temporary. Order 150 MHz models (NLA-150-K, NMO-150-K, etc.)

## 1-1/4 Meters...220-225 MHz

These Larsen's, like all others supplied by this active old-time amateur, have the exclusive Kūlrod whip. It's your assurance of no loss of power thru heat. See pages 7 thru 11 for 5 different permanent mount choices and 4 temporary mounts that mate with them. Order 220 MHz models (JM-220-K, NMO-220-K, LM-220-MM, etc.)

## 3/4 Meters...440-450 MHz

These collinear design Larsen's deliver a gain of 5 db over a 1/4 wave. And they're built to stand rough usage and all kinds of weather. **See pages 12 thru 16** for permanent and temporary models to meet your every need. Order 440 MHz models (JM-440-K, NMO-440-K, LM-440-TLM, etc.)

## Larsen's New Easy Reading Amateur Catalog

Twenty-seven pages of Larsen Kūlrod antennas, mounts and accessories in the complete range of amateur frequencies in low, high and UHF bands. All in an easy-to-read, pocket size format. Includes price list.

## SPECIAL AMATEUR ANTENNAS

#### **Base Station**

Gain antennas for 144 and 440 MHz use. Up in a jiffy and work great. Rugged yet minimal wind drag. See pages 24, 25, 26 and 27.

#### **Portables**

Get real performance out of that hand-held even from tough spots. Also carry an antenna and tower in your pocket. See page 22.

### No Ground Plane

And still get out. The only antenna designed specifically for fiberglass tops on recreation vehicles, boats, sports cars, etc. See page 23 for the OMNI Antenna.

### Hand-Helds

Add the shorter length, greater flexibility and improved convenience of the Larsen Kūlduckie antenna to your hand-held without losing on performance. Models for 144, 220 and 440 frequencies. See pages 20 and 21 for Larsen Kulduckie types, and order with **amateur frequency**.



# LARSEN KÜLROD"MOBILE ANTENNAS HARDWARE/PARTS

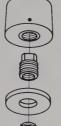
## MOUNTING HARDWARE

## JM-B

#### FOR JM ANTENNA

3%" hole; mounts in Roof/Trunk/Fender.

(No coax cable or connector included)



## LA-B

#### FOR LA ANTENNA

3%" hole; mounts in Roof/Trunk/Fender.

(No coax cable or connector included)



## LM-B

#### FOR LM ANTENNA

3/4" hole; mounts in Roof/Trunk/Fender.

(No coax cable or connector included)



## NLA-B

#### FOR NLA ANTENNA

3/8" hole; mounts in Roof/Trunk/Fender.

(No coax cable or connector included)



## NMO-B

### FOR NMO ANTENNA

3/4" hole; mounts in Roof/Trunk/Fender.

(No coax cable or connector included)



## BAM-B

#### COWL MOUNT FOR NLA ANTENNA

(With Adapter Kit A-2 —see below — the BAM-B also

accommodates NMO Antennas.)

15/16" hole; for fender, trunk or where a slanting surface inhibits vertical mounting of antenna.

(No coax cable or connector included)

## **ADAPTERS**

Just 3 simple Larsen Mounting Adapters add flexibility and adaptability to the Larsen Kulrod Antenna line. They reduce stocking and inventory requirements. Specifically, the Larsen NLA and NMO Antennas have added mounting options with no loss in performance. Use the chart below to select the Adapter Kit you need.



Kit A-3

Kit A-4
Combines

A-1

&

A-2

Kit A-5
Combines
A-2
&

A-3

#### TO MOUNT:

#### USE ADAPTER KIT:

	A-1	A-2	A-3	A-4	A-5
NLA Antenna on ASP K-49 or K-57 mount			XX		
NLA Antenna on BSA-K or BA	XX				
NMO Antenna on BA (Bulkhead adapter)				XX	
NMO Antenna on BAM (Cowl mount)		XX			
NMO Antenna on BSA (Base Station) mount				XX	
NMO Antenna on NLA mount		XX			
NMO Antenna on SO-239 mount				XX	
NMO Antenna on SBK (Sail Boat Kit)				XX	
NMO Antenna on ASP K-49 or K-57 mount					XX

#### NOTE:

The above adapter kits are intended to provide mounting flexibility and convenience for antenna installers. They should not be considered as the most satisfactory route to go as in most cases they do not offer the same low silhouette and design appearance as matching antennas and mounts offered throughout this catalog.

## ARSEN KÜLROD"MOBILE ANTENNAS X/ARE/PARTS

## REPLACEMENT **LOADING COILS**



Available for all Larsen Models. Order by designating Model, Frequency Range and add initials "CO" which designates loading coil only.

Example: For base loading coil only for NLA-150 Antenna covering 144-174 MHz order NLA-150-CO.

Example: For Motorola Antenna coil only to cover 450 MHz range order NMO-450-CO, etc.

Loading coils so ordered do NOT include whip.

### KULROD® WHIPS

All Larsen Kulrod® whips are made from the finest 17-7 stainless steel, plated with the unique Kulrod plating process to improve conductivity and RF performance.

#### Model No. Description

14/ 000	Deviles and the few Coopers
W-030	Replacement whip for Q-800 or
	NMOQ-800 3" x 0.100" non-tapered.
W-155	Collinear whip replacement for all UHF 5
	dB antennas except OM series.
W-160	Collinear whip replacement for OM Series
	UHF antenna.
W-200	Replacement whip for all 136 to 512 MHz
	quarter wave antennas. 20" x .070"
	non-tapered.
W-400	Replacement whip for 88 to 136 MHz
	quarter wave antennas 40" x 0.100"
	non-tapered.
W-490	Replacement whip for most VHF gain
	antennas and low band loaded guarter
	wave antennas. 49" x 0.100" tapered.
W-540	Replacement whip for 52-88 MHz quarter
	wave antennas. Also used to allow VHF
	antennas to operate between 136 and 174
	MHz. 54" x 0.100" tapered.

### "O" RINGS

O-NMO "O" Ring Kit with 3 Rings for

O-LM

NMO-Q mount.

#### NMO mount. "O" Ring Kit with 3 Rings for LM mount. O-NMO-Q 'O" Ring Kit with 3 Rings for

## **HOLE PLUGS**

HP-38 3/8" size. 6 per pkg. HP-34 3/4" size. 5 per pkg

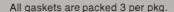


## **RUBBER GASKETS**

Model No.

Description

RG-I M Rubber gasket for LM Mounts. RG-FB1 Rubber gasket for FB1 Antenna. RG-NLA Rubber gasket for NLA Mounts. RG-NMO Rubber gasket for NMO Mounts. RG-LA Rubber gasket for LA Mounts. RG-SBK Rubber gasket for SBK Mounts. RG-JM Rubber gasket for JM Mounts. Rubber gasket for OM Mounts. RG-OM RG-TLM Rubber gasket for TLM Mounts.





### CONTACT REPLACEMENT KIT

CRK

Contact replacement kit for all NLA Models . . consists of teflon insulator and silver contact pin.



### **BULKHEAD ADAPTERS**

BA Bulkhead adapter. Interfaces two PL-259 connections

through a bulkhead. Particularly excellent for adapting PO antenna to

fiberglass roofs.

BA-K Bulkhead adapter, as above, but with 17' RG58A/U cable

and two PL-259 connectors.



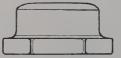
### PORTABLE ANTENNA

PQ

Quarter Wave antenna terminating in PL-259 plug to fit portable equipment; such as, GE Portamobile, Motorola, etc. High Band only.



#### RAIN CAP



For ordering: NMO-CAP NLA-CAP LM-CAP

Screws down over mounting hardware to protect it from moisture, dust and car washes. Made of rugged molded plastic. Indispensable where the same antenna is transferred back and forth from one car to another. Available for NMO, NLA and LM mounting series.

# LARSEN KÜLROD®MOBILE ANTENNAS HARD\X/ARE/PARTS

### COAX CABLE

Model No.

Description

CX-100

RG-58 A/U Coax in 100' rolls.

### COAX FITTINGS AND CONNECTORS

PA-5

PL-259 Coax Fittings complete with UG-175 adapter. 5 per pkg.



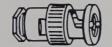
QC-60

Improved Coax Fitting for fastest assembly. 5 per pkg.



**BNC** 

Standard Male Connector. One per pkg.



MP

Microminiature plug for portables. Includes protective shrink tubing.



### KULDUCKIE CAPS

Two types:

CAP-1 for all KD-1 thru KD-9 antennas. CAP-2 for all KD-11 thru KD-19 antennas. When ordering indicate color to show your frequency of operation. 25 per pkg.

CAP-1-Blue CAP-1-Green CAP-1-Red CAP-1-Orange



CAP-1-Yellow CAP-2-Black



Larsen name color-coded on cap.

## ANTENNA ROD TIPS

BALL-1

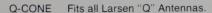
Fits W-490, W-540, Q-66 Antennas

BALL-2

Fits O. UHF Gain Antennas, NMO-Q and NLA-Q Antennas.

10 per pkg.

## CONES





### **SET SCREWS**

Model No.

Description

# 8x32

Allen head stainless set screws. 25 per pkg.

#10x32 Allen head stainless set screws. 25 per pkg.

## TRUNK GUTTER MOUNT BRACKETS

**TMB-34 TMB-38** 

Bracket for 3/4" hole. Bracket for 3/8" hole.

**TMB-58** 

Bracket for 5/8" hole.

TMB-OM

Bracket for OM series Antennas.

## SPRING

Narrow diameter shock spring made of electropolished stainless steel, positively shorted for dependable performance. This spring is compatible with Larsen 800 MHz antennas and Larsen UHF antennas made after January 15, 1981.



Larsen Antenna **Rod Cutter** 



CUTTER

Simplifies rod cutting for mobile antennas. Long handles (9") and a short fulcrum on the blade side allows for tightly spaced cuts. One set of two blades included with each Cutter.

REPLACEMENT BLADES

Extra blades packaged two per set.

## LARSEN KÜLROD®MOBILE ANTENNAS SPECIAL ANTENNAS & ADAPTERS

Designed to meet specific and specialized communications antenna needs.

## BT MODEL





Antenna only available from Larsen . . . no mounts.

Order BT-150 ... for 144-174 MHz use. Order BT-450 ... for 450-470 MHz use.

## HY MODEL

This Larsen antenna is designed for mounting on bases that require a 3/8" x 24 thread stud. Gives you a tight, weatherproof and rugged installation. Stud is supplied for use if needed. Performance meets same high standards of all Larsen  $K\overline{u}Irod$  VHF antennas. See page 7.



Antenna only available from Larsen . . . no mounts.

Order HY-150 . . . for 144-174 MHz use.

## MO MODEL

This antenna is the matchmate for the older style Motorola TU-316 mount. Gives top performance with a full 3 db gain over a quarter wave. UHF Model delivers 5 db gain. See pages 7 and 13 for more data.



Antenna only available from Larsen . . . no mounts.

Order MO-150... for 144-174 MHz use. Order MO-220... for 220-225 MHz use. Order MO-440... for 440-460 MHz use. Order MO-450... for 450-470 MHz use.

#### SA MODEL

This model for mating with the A.S.P. K-49 or K-57 mounts is no longer available. It is superceded by the Larsen NLA models with the A3 Adapter Kit. See Adapter Kit information below.

BAM-K Cowl Mount for fender, trunk or use where slanting surface inhibits vertical mounting of antenna. Mount mates with Larsen NLA Antenna. Also fits NMO Antenna with adapter kit A-2.

# The Larsen No Nonsense Full Six Month Warranty

Larsen Electronics, Inc. warrants to every user of a Larsen that it will perform to its specified ratings (published specifications) and will be free from defects in materials and workmanship.

Larsen will repair or replace, without charge, any Larsen Antenna which fails within six months of the purchase date to meet this warranty. Excluded, of course, is failure due to misuse such as striking solid or foreign objects (trees, buildings, overhangs, doorways, etc.), improper installation and application of power in excess of specified ratings.

Larsen will not, however, be responsible for any incidental or consequential damages due to failure of a Larsen Antenna under this warranty or any implied warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

#### **CLAIMS INSTRUCTIONS**

In order to obtain performance under the Larsen Warranty obligation, return the antenna to the factory. If you desire, you may request a postage-paid "Warranty Return Label", in which case Larsen will pay the postage. Make return shipment to:

Larsen Electronics, Inc.

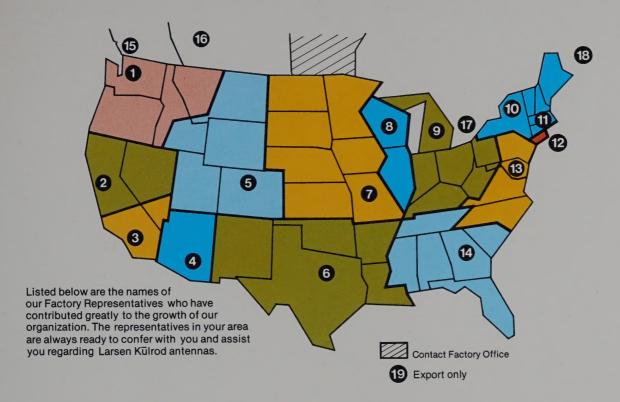
Attn: Customer Service Department P.O. Box 1686 Vancouver, WA 98668 Include with the antenna a note detailing the failure symptoms and indicate where and when the unit was purchased. Be sure to include your full name and address.

Upon arrival at the Larsen factory the antenna will be promptly repaired or replaced and returned to you postpaid.

IMPORTANT: This warranty gives you specific legal rights and you may have other rights which vary from state to state.

In the application of its No Nonsense Warranty it is the intent and policy of Larsen Antennas to always use the yardstick of the Golden Rule. It is on this foundation that the company has built and prospered.

## Larsen Electronics Sales Representatives and Factory Offices



## U.S. Sales Representatives

1. Arva-Hudson, Inc. P.O. Box 1512 Bellevue, WA 98009 (206) 455-0773

Raymarg P.O. Box 515 Santa Clara, CA 95052 (408) 248-5199

3. Ross Communications, Inc. P.O. Box 4096 Covina, CA 91723

P.O. Box 4096 Covina, CA 91723 (213) 967-2402

4. Ross Communications of Arizona P.O. Box 17913 Tucson, AZ 85731 (602) 885-5368

5. Aurora Marketing 2020 S. Oneida St. Suite 204 Denver, CO 80224 (303) 758-3051 (303) 758-3051

(303) 758-3051
6. Horizon Eng. Sales Co.
P.O. Box 768 Rockwall, TX 75087
(214) 226-4712
7. Comm. Systems Assoc.
520 W. 5th St. Cameron, MO 64429
(816) 632-7616
8. Electronic Products, Inc.
140 North Ave. Hartland, WI 53029
(414) 367-2929 or (Illinois: 800-558-2331)
9. Webster Associates

Webster Associates 115 Bellarmine Rochester, MI 48063 (313) 375-0420 or 800-521-2333 (except Michigan) 10. TriCom Sales Inc.

401 Sherman St. Rochester, NY 14606 (716) 458-2194 11. Johnson Associates Inc.

11. Johnson Associates Inc.
148 Linden St. Wellesley, MA 02181 (617) 235-3977
12. H.M. Holzberg Assoc.
P.O. Box 322 Totowa, NJ 07511 (201) 256-0455

13. Tessco Inc. 1931 Greenspring Drive Timonium, MD 21093 (301) 252-0860

14. Secom Systems
5241-F New Peachtree Rd. Chamblee, GA 30341 (404) 455-0672

## Canadian Sales Representatives

15. British Columbia Traeger Distributors Ltd. 5600 Cedarbridge Wy., Unit 102 Richmond, BC V6X 2A7 (604) 278-1541

16. Alberta/Saskatchewan Westcan Two-Way Radio Ltd. 12618 - 124th St. Edmonton, AB T5L 0M7 (403) 451-2355

17. Ontario/Quebec Kilpatrick Communications & Controls 3640 Weston Rd., Unit #3 Weston, ON M9L 1W2 (416) 743-6945

18. Atlantic Provinces Eastcom Industries Ltd. 2760 Robie Street Halifax, NS B3K 4P2 (902) 455-0294

## Caribbean, Central America, Northern South America

19. West Indies Sales Co. 690 W. 28th St. Hialeah, FL 33010 (305) 888-1676-77-82 Twx 810-848-6192

## Factory Offices

Canadian Larsen Electronics, Ltd.

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M. Antonio Caso #61-209 Mexico 4, D.F. MEXICO (905) 514-09-09

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